



# BRYAN REGIONAL PARK

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## PROGRAM STATEMENT

Interim Document

AUGUST 28, 2018



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Bryan, Texas

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# 01 Introduction

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# Introduction

A **Program Statement** is an essential step in the design process. It clarifies intent and requirements, while identifying restraints and boundaries. It provides the “recipe” for a design, including objectives, instructions, expectations, desired outcomes, and controls required to achieve both satisfactory and intended results.

It involves several key efforts including:

- Staff meetings
- Council workshop
- Site assessment
- Market analysis
- Programming Interviews
- Public engagement efforts
- Existing document review
- Program analysis

Programming is a discovery process to identify and make clear the **Facts, Goals, Concepts, and Needs** of the project. This includes clarifying, during initial meetings, the expectations and desired outcomes of key stakeholders and community members for the building and site.

**Facts** include understanding current administrative/ staff organization structure, relevant regulatory/ current code requirements, challenges to services and operations, and assessment of the future park site including existing environmental constraints.

**Goals** consider relevant objectives within the current City Comprehensive Plan, Parks Master Plan, and shared stakeholder vision. As part of the interview process, goals are clarified for specific focus groups, patron/user experience, and functional/operational targets.

**Concepts** embrace a representative notion, idea of an expectation or desired outcome. It is not limited to proposed building and site attributes. The intent is to represent, through design, a preferred result, activity, or experience.

**Needs** are clarified by recognizing and acknowledging current requirements and future demand. The “gap” between these two forces is also explored. This process is actualized through interviews, public engagement, surveys, assessments, and market analysis to effectively pinpoint the opportunities and challenges that exist for each project and determine reasonable solutions that align with the facts, goals, and concepts of the Project.

The City of Bryan contracted with Burditt Consultants to develop a feasibility study and Master Plan for a new Bryan Regional Park, located at the former Travis B. Bryan Municipal Golf Course, the existing Williamson Park, and Astin Recreational Area. For the purpose of this program statement, “the Project” will refer to the efforts associated with the development of the Bryan Regional Park Master Plan.

The new Travis B. Bryan Park should be a world-class destination featuring outdoor athletic fields, indoor recreation facilities, and nature-based recreation opportunities. An integrated social and ecological approach that promotes public health, cultural awareness and environmental stewardship is desired. In addition, the new park must be unique in purpose as well as design to provide a catalyst for the positive redevelopment of the entire “mid-town” corridor.

Programming directives, identified through-out the process, are summarized under the attributes of function, form, economy, and time. They include, but are not limited to, the following:

### **FUNCTION**

- Bryan desires to create a world-class regional park destination that is also an amenity for the local community
- Consider access and programs for all individuals in the community
- Consider an integrated ecological approach that preserves existing habitat and offers opportunities for education as well as interactive experiences with nature
- Consider safety throughout the site and delineate certain areas, inside and outside, for certain activities or groups

### **FORM**

- The former golf course topography, existing vegetation, lake, and surrounding community create exceptional forces to which the park plan must respond
- Design must seek to minimize environmental impacts and consider sustainable design practices and possible third party certifications from agencies such as the US Green Building Council LEED or SITES program
- Create a place of lasting beauty that makes people want to visit

### **ECONOMY**

- Park will be both a regional destination and a significant local amenity and the quality of design and construction must be of a high level
- Operation and maintenance considerations such as access, specialized equipment, and storage must also be considered
- Plan for the long-term commitment for high quality programs and facilities

### **TIME**

- The park must be built in phases, the Master Plan must identify the common support facilities, utilities and other amenities to serve all phases equally
- Phasing should be designed to provide fully functional facilities at each stage of development



## 02 Site Analysis - Summary

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## Site Analysis - Summary

Planning for park development requires careful consideration of the existing conditions of the property under consideration. The physical and biological properties of soils, drainage and floodplain conditions, existing flora and fauna, and many other factors will all play an important part to inform designers of potential challenges and opportunities. These factors will also highlight opportunities for low-impact development such as tree preservation and wildlife habitat enhancement.

The methodology for the site analysis included a combination of research, remote sensing using geographic information systems, and on-the-ground inventory of conditions. The following subjects comprise the base data that was used to inform the planning and design team:

- Soil Characterization
- Urban Forest Inventory
- Land Cover Classification
- Topography
- National Flood Hazard Layer
- NRCS Major Land Resource Areas (MLRAs)
- TPWD Ecological Systems Classification
- Walkability Index

### Summary of Findings

The historical use of the property is as follows:

- Pre-1918 - Agricultural/Pastoral
- 1918 to 1939 - Country Club/Golf Course
- 1939 to 2017 - Municipal Golf Course

Overall, the site has a long history of use for recreation. The property has been maintained with fertilized, irrigated turf-grasses for an extended period of years. Creeks and drainages provide some edge and corridor environment for local wildlife, primarily bird species and small mammals. The pond is reportedly offering waterfowl habitat for common species such as the Great Blue Heron and Snowy Egret among others.

### **Soils**

The soils on site are primarily comprised of three main soil series: Boonville-Urban Land Complex, 0 to 3% slopes, Zack-Urban Land Complex, 1 to 5% slopes, and Sandow-Urban Land Complex, frequently flooded. These soil types are similar in physical and chemical properties and are largely delineated by changes in topography. The soils are characteristic of the general Bryan-College Station area and have been influenced by urban development for a long period of time.

### **Urban Forest**

The site was evaluated with regards to the existing Urban Forest, comprised of trees and shrub species. Trees were observed with an eye for potential conflicts with future development, overall health and condition, maintenance concerns and presence of potential hazards. A priority inventory of maintenance and mitigation needs is included in this report.

**Land Cover**

A land cover classification analysis was conducted using Geographic Information Systems (GIS) software to identify and quantify tree canopy. The analysis provides baseline information as to the relative distribution of tree canopy as a percentage of the total 148 acres site. This can serve as a benchmark for future development. A total of 29.52 acres of tree canopy were identified, representing approximately 19.9% canopy cover within the property boundaries.

**Topography and Flood Hazard**

Review of elevation and contours and floodplain mapping is an important step in any site planning or development strategy. Evaluation of contours and flood zones on the project site reveals the general patterns of drainage that must be considered and potential limitations for development from an engineering or regulatory perspective. There is a significant portion of the property (approximately 43.5%) within the Zone AE 1.0% Annual Chance of Flood area. This classification, also known as the 100 Year Floodplain, represents areas where proposed structures will require grading to mitigate potential flooding by raising the finished floor elevation above the Base Flood Elevation. There were no areas within the Regulatory Floodway on the site.

**Ecological Conditions**

The State and Federal databases for Major Land Resource Areas and Ecological Systems Classifications were queried to identify the land cover and vegetation types for the area. The results of these queries were copied into this report for reference in any preservation or enhancement efforts for wildlife habitat and plant communities as the design process progresses. The findings were typical of the region and will primarily serve in identification of appropriate native plant species to consider in the future landscape.

**Walkability**

The Environmental Protection Agency’s (EPA) Walkability Index was queried in GIS to identify the relative ease of walkability to the site. The index utilizes key features of the U.S. Census and characteristics of the built environment to rate the likelihood of travelling to and around the area by walking. Generally, the areas to the East and North of the property were rated as ‘Most Walkable’, while the areas to the West, Southwest and South were rated as ‘Below Average’ or ‘Least Walkable’.



# Site Analysis – Summary

## SOIL CHARACTERIZATION

Soil characteristics have a dramatic influence on the natural and man-made systems of land. Drainage and infiltration, chemical properties, structural properties, and many more attributes affect what types of plants and animals will thrive in an environment, how the site will respond to climatic conditions, and how the land can be used for recreation, development, or agriculture. A cursory review of soil conditions is the first step in any site analysis to literally start from the “ground up” to gain a deeper understanding of the land.

There are three major cover soil series that are represented on the park property. Following are the soil series descriptions derived from the official Soil Survey of Brazos County, as provided by the Natural Resources Conservation Service (NRCS):

### **Map Unit:** BrB—Boonville-Urban land complex, 0 to 3 percent slopes

This component is on ridges on inland dissected coastal plains. The parent material consists of clayey colluvium overlying shale in the Yegua formation of Eocene age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, and December. Organic matter content in the surface horizon is about 1 percent. Non-irrigated land capability classification is 3e. This soil does not meet hydric criteria. The soil has a maximum sodium adsorption ratio of 2 within 30 inches of the soil surface.

### **Map Unit:** Sb—Sandow-Urban land complex, frequently flooded

This component is on flood plains on inland dissected coastal plains. The parent material consists of loamy alluvium of Holocene age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, and December. Organic matter content in the surface horizon is about 3 percent. Non-irrigated land capability classification is 5w. This soil does not

meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 4 within 30 inches of the soil surface.

### **Map Unit:** ZcB—Zack-Urban land complex, 1 to 5 percent slopes

This component is on ridges on inland dissected coastal plains. The parent material consists of residuum weathered from shale and siltstone in the Yegua formation of Eocene age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the Claypan Prairie ecological site. Non-irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 4 within 30 inches of the soil surface.



Soil Survey  
Bryan Regional Park



**TREE HAZARD ANALYSIS WORKSHEET**

DATE: May 15,17, and 22.  
 APPLICANT: City of Bryan Texas  
 PROJECT LOCATION: 206 W. Villa Maria Rd.  
 Bryan, TX  
 SIZE\DESCRIPTION: 150.38 Acres

*Trees tallied by JR and JH. Hazard Removals flagged with orange and Hazard Prunes flagged with Blue and tagged*

Tree #	Species	Diameter	Comments
1401	Post Oak	21	HP-Hazard Prune
HR	Post Oak	19	HR-Hazard Removal
1402	Post Oak	28	HP-Hazard Prune
1403	Post Oak	22	HP-Hazard Prune
1404	Post Oak	25	HP-Hazard Prune
1405	Post Oak	34	HP-Hazard Prune
HR	Sugarberry	22	HR-Hazard Removal
1406	Post Oak	19	HP-Hazard Prune
1407	Post Oak	19	HP-Hazard Prune
1408	*Post Oak	36	HP-Hazard Prune
1409	Post Oak	22	HP-Hazard Prune
1410	Post Oak	16	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
1411	Post Oak	20	HP-Hazard Prune
1412	Post Oak	14	HP-Hazard Prune
1413	Post Oak	12	HP-Hazard Prune
1414	Post Oak	17	HP-Hazard Prune
1415	Post Oak	23	HP-Hazard Prune
HR	*Willow	15,10	HP-Hazard Removal - Beaver damage
1416	Post Oak	20	HP-Hazard Prune
1417	Post Oak	13	HP-Hazard Prune
1418	Post Oak	13	HP-Hazard Prune
1419	Post Oak	23	HP-Hazard Prune
1420	Post Oak	15	HP-Hazard Prune
1421	Post Oak	16	HP-Hazard Prune
1422	Post Oak	11	HP-Hazard Prune
1423	Post Oak	24	HP-Hazard Prune

Tree #	Species	Diameter	Comments
1424	Post Oak	19	HP-Hazard Prune
1425	Post Oak	24	HP-Hazard Prune
1426	*Post Oak	19,32	HP-Hazard Prune
1427	Arizona Ash	21	HP-Hazard Prune
1428	Arizona Ash	32	HP-Hazard Prune
HR	Arizona Ash		HR-Hazard Removal
HR	Arizona Ash		HR-Hazard Removal
1429	Post Oak	22	HP-Hazard Prune
1430	Post Oak	35	HP-Hazard Prune
1431	Post Oak	35	HP-Hazard Prune
1432	Post Oak	16	HP-Hazard Prune
1433	Post Oak	23	HP-Hazard Prune
1434	Post Oak	16	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
1435	Post Oak	24	HP-Hazard Prune
1436	Post Oak	17	HP-Hazard Prune
1437			
1437	Post Oak	22	HP-Hazard Prune
1438	Post Oak	20	HP-Hazard Prune
1439	Water Oak	30	HP-Hazard Prune-Bees
1440	Post Oak	27	HP-Hazard Prune
1441	Arizona Ash	16	HP-Hazard Prune
1442	Arizona Ash	16	HP-Hazard Prune
1443	Arizona Ash	10	HP-Hazard Prune
1444	Elm	24	HP-Hazard Prune
1445	*Willow	21,11	HP-Hazard Prune
HR	Elm	15	HR-Hazard Removal

PROGRAM STATEMENT

# Site Analysis - Summary

Tree #	Species	Diameter	Comments
1446	Elm	14	HP-Hazard Prune
1447	Arizona Ash	14	HP-Hazard Prune
1448	Post Oak		HP-Hazard Prune
1449	Post Oak	31	HP-Hazard Prune
1450	Post Oak	35	HP-Hazard Prune
1451	Post Oak	27	HP-Hazard Prune
1452	Post Oak	17	HP-Hazard Prune
1453	Post Oak	21	HP-Hazard Prune
1454	Post Oak	31	HP-Hazard Prune
1455	Post Oak	16	HP-Hazard Prune
1456	Post Oak	24	HP-Hazard Prune
1457	Post Oak	23	HP-Hazard Prune
1458	Post Oak	19	HP-Hazard Prune
1459	Post Oak	23	HP-Hazard Prune
1460	Post Oak	17	HP-Hazard Prune
1461	Post Oak	23	HP-Hazard Prune
1462	Post Oak	16	HP-Hazard Prune
1463	Post Oak	17	HP-Hazard Prune
1464	Post Oak	20	HP-Hazard Prune
1465	Post Oak	27	HP-Hazard Prune
1466	Post Oak	27	HP-Hazard Prune
1467	Loblolly pine	27	HP-Hazard Prune
1468	Loblolly pine	36	HP-Hazard Prune
1469	Post Oak	29	HP-Hazard Prune
1470	Post Oak	26	HP-Hazard Prune
1471	Post Oak	23	HP-Hazard Prune
1472	Sweetgum	22	HP-Hazard Prune
1473	Post Oak	22	HP-Hazard Prune
HR	Mulberry	45	HR-Hazard Removal
1474	Mulberry	14	HP-Hazard Prune
1475	Arizona Ash	15	HP-Hazard Prune
1476	Post Oak	26	HP-Hazard Prune
1477	Post Oak	18	HP - Hazard Prune
HR	*Post Oak	29	HR-Hazard Removal
1479	Post Oak	27	HP- Hazard Prune
1480	Post Oak	24	HP-Hazard Prune

Tree #	Species	Diameter	Comments
1481	Post Oak	23	HP-Hazard Prune
1482	Post Oak	17	HP-Hazard Prune
1483	Post Oak	18	HP-Hazard Prune
1484	Post Oak	23	HP-Hazard Prune
1485	*Post Oak	20,24	HP-Hazard Prune
1486	Post Oak	27	HP-Hazard Prune
1487	Post Oak	21	HP-Hazard Prune
1488	Post Oak	24	HP-Hazard Prune
1489	Post Oak	16	HP-Hazard Prune
1490	Post Oak	27	HP-Hazard Prune
1491	Post Oak	17	HP-Hazard Prune
1492	Post Oak	10	HP-Hazard Prune
1493	Post Oak	14	HP-Hazard Prune
1494	Post Oak	20	HP-Hazard Prune
1495	Post Oak	18	HP-Hazard Prune
1496	Post Oak	15	HP-Hazard Prune
1497	Post Oak	24	HP-Hazard Prune
1498	Post Oak	18	HP-Hazard Prune
1499	Post Oak	18	HP-Hazard Prune
1500	Post Oak	19	HP-Hazard Prune
1701	Gum Bu- melia	12	HP-Hazard Prune
1702	Post Oak	15	HP-Hazard Prune
1703	Post Oak	30	HP-Hazard Prune
1704	Post Oak	19	HP-Hazard Prune
1705	Post Oak	28	HP-Hazard Prune
1706	Post Oak	25	HP-Hazard Prune
1707	Post Oak	14	HP-Hazard Prune
1708	Post Oak	16	HP-Hazard Prune
1709	Post Oak	15	HP-Hazard Prune
1710	Post Oak	18	HP-Hazard Prune
1711	Post Oak	16	HP-Hazard Prune
1712	Post Oak	10	HP-Hazard Prune
1713	*Post Oak	27 (13/14)	HP-Hazard Prune
1714	Post Oak	10	HP-Hazard Prune
1715	Post Oak	16	HP-Hazard Prune
1716	Post Oak	11	HP-Hazard Prune
1717	Post Oak	12	HP-Hazard Prune

PROGRAM STATEMENT

Tree #	Species	Diameter	Comments
1718	Post Oak	11	HP-Hazard Prune
1719	Post Oak	17	HP-Hazard Prune
1720	Post Oak	17	HP-Hazard Prune
1721	Post Oak	15	HP-Hazard Prune
1722	Post Oak	15	HP-Hazard Prune
1723	Post Oak	14	HP-Hazard Prune
1724	*Post Oak	24 (12/12)	HP-Hazard Prune
1725	Post Oak	9	HP-Hazard Prune
1726	Post Oak	14	HP-Hazard Prune
1727	Post Oak	20	HP-Hazard Prune
1728	Post Oak	22	HP-Hazard Prune
1729	Post Oak	17	HP-Hazard Prune
1730	Post Oak	13	HP-Hazard Prune
1731	Post Oak	19	HP-Hazard Prune
1732	Post Oak	14	HP-Hazard Prune
1733	Post Oak	14	HP-Hazard Prune
1734	Post Oak	14	HP-Hazard Prune
1735	Post Oak	12	HP-Hazard Prune
1736	Post Oak	25	HP-Hazard Prune
1737	Post Oak	22	HP-Hazard Prune
1738	Post Oak	27	HP-Hazard Prune
1739	Post Oak	23	HP-Hazard Prune
1740	Post Oak	26	HP-Hazard Prune
1741	Post Oak	17	HP-Hazard Prune
1742	Post Oak	27	HP-Hazard Prune
1743	Post Oak	21	HP-Hazard Prune
1744	Post Oak	21	HP-Hazard Prune
1745	Post Oak	16	HP-Hazard Prune
1746	Post Oak	15	HP-Hazard Prune
1747	Post Oak	20	HP-Hazard Prune
1748	Post Oak	19	HP-Hazard Prune
1749	*Post Oak	36 (19/17)	HP-Hazard Prune
1750	Post Oak	14	HP-Hazard Prune
1751	Post Oak	18	HP-Hazard Prune
1752	Post Oak	17	HP-Hazard Prune
1753	Post Oak	22	HP-Hazard Prune
1754	Post Oak	24	HP-Hazard Prune

Tree #	Species	Diameter	Comments
1755	Post Oak	19	HP-Hazard Prune
1756	Post Oak	30	HP-Hazard Prune
1757	Post Oak	25	HP-Hazard Prune
1758	Post Oak	23	HP-Hazard Prune
1759	Post Oak	14	HP-Hazard Prune
1760	*Post Oak	24 (8,16)	HP-Hazard Prune
HR	Sugarberry	8	
1761	Post Oak	11	HP-Hazard Prune
HR	Post Oak	16	
1762	Post Oak	13	HP-Hazard Prune
1763	Post Oak	13	HP-Hazard Prune
HR	Post Oak	20	
1764	Post Oak	14	HP-Hazard Prune
1765	Post Oak	23	HP-Hazard Prune
1766	*Post Oak	30 (14,16)	HP-Hazard Prune
1767	Post Oak	16	HP-Hazard Prune
1768	*Post Oak	37 (16,21)	HP-Hazard Prune
1769	Post Oak	11	HP-Hazard Prune
1770	Post Oak	23	HP-Hazard Prune
1771	Post Oak	23	HP-Hazard Prune
1772	Post Oak	24	HP-Hazard Prune
1773	Post Oak	26	HP-Hazard Prune
1774	Post Oak	20	HP-Hazard Prune
1775	Post Oak	35	HP-Hazard Prune
1776	Post Oak	35	HP-Hazard Prune
1777	Post Oak	21	HP-Hazard Prune
1778	Post Oak	12	HP-Hazard Prune
1779	Water Oak	33	HP-Hazard Prune
1780	Post Oak	17	HP-Hazard Prune
1781	*Post Oak	27 (13,14)	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
1782	Post Oak	21	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
1783	Post Oak	24	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal

PROGRAM STATEMENT

# Site Analysis - Summary

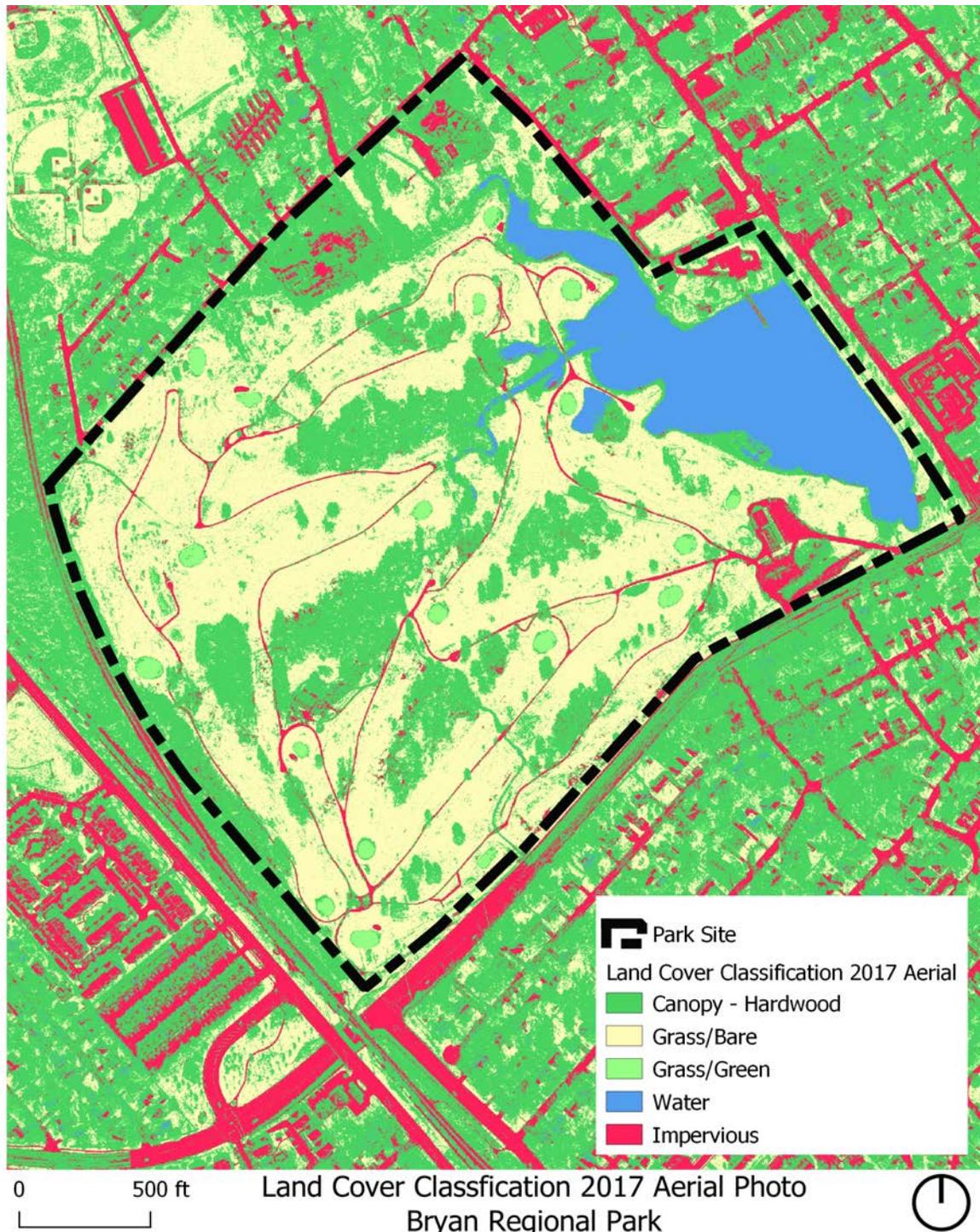
Tree #	Species	Diameter	Comments
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
1784	Post Oak	14	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
1785	*Post Oak	24 (13,11)	HP-Hazard Prune
1786	Post Oak	29	HP-Hazard Prune
1787	Post Oak	20	HP-Hazard Prune
1788	Post Oak	22	HP-Hazard Prune
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
HR	Post Oak		HR-Hazard Removal
1789	Post Oak	10	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
1790	Post Oak	22	HP - Hazard Prune
1791	Post Oak	22	HP - Hazard Prune
1792	Post Oak	19	HP - Hazard Prune
1793	Post Oak	13	HP - Hazard Prune
1794	Black Wil- low	19	HP - Hazard Prune
1795	Sugarberry	11	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
1796	Post Oak	17	HP - Hazard Prune
1797	*Catalpa	37 (12,12,13)	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
1798	Ash	22	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
1799	Post Oak	27	HP - Hazard Prune
1800	Post Oak	22	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
101	Sugarberry	13	HP - Hazard Prune
102	Sugarberry	14	HP - Hazard Prune
103	*Post Oak	26,18	HP - Hazard Prune

PROGRAM STATEMENT

Tree #	Species	Diameter	Comments
104	Post Oak	25	HP - Hazard Prune
105	Post Oak	22	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
106	Post Oak	14	HP - Hazard Prune
HR	Post Oak		HR-Hazard Removal
107	Post Oak	19	HP - Hazard Prune
108	Post Oak	22	HP - Hazard Prune
109	Post Oak	26	HP - Hazard Prune
110	Post Oak	18	HP - Hazard Prune
111	Post Oak	31	HP - Hazard Prune
112	Post Oak	24	HP - Hazard Prune
113	Post Oak	24	HP - Hazard Prune
114	Post Oak	31	HP - Hazard Prune
115	Post Oak	24	HP - Hazard Prune
HR	B'ois D'arc		HR-Hazard Removal
116	Post Oak	33	HP - Hazard Prune
117	Post Oak	31	HP - Hazard Prune
118	Post Oak	17	HP - Hazard Prune
119	Post Oak	33	HP - Hazard Prune
120	Post Oak	28	HP - Hazard Prune
121	Post Oak	28	HP - Hazard Prune
122	Post Oak	17	HP - Hazard Prune
HR	Water Oak		HR-Hazard Removal
HR	Water Oak		HR-Hazard Removal
123	Post Oak	25	HP - Hazard Prune

### LAND COVER CLASSIFICATION - Tree Canopy

Utilizing Geographic Information Systems (GIS), the land cover of the property was classified into categories in order to identify the total tree canopy cover. An approximate 29.52 acres of land are covered in tree canopy, primarily comprised of hardwood species. This represents an overall coverage of 19.6% tree canopy within the property boundaries. This value can serve as a benchmark for future development scenarios.



# Site Analysis - Summary

## Trees

Sweetgum (*Liquidambar styraciflua*)-E(t)  
 Cedar Elm (*Ulmus crassifolia*)E(S)  
 Live Oak (*Quercus virginiana*)  
 Water Oak (*Quercus nigra*)-E (S)  
 Post Oak (*Quercus stellata*)-E(S)  
 Sugarberry (*Celtis laevigata*)-E (S)  
 Eastern Red Cedar (*Juniperus virginiana*)  
 Hawthorn (*Crataegus spp.*)-E(S)  
 Chinese Tallow (*Triadica sebiferum*) I  
 Sycamore (*Platanus occidentalis*) E-sap  
 Box Elder (*Acer negundo*) E (S)  
 Texas Red Oak (*Quercus texana*)  
 Redbay (*Persea borbon*)-Sp  
 Red Maple (*Acer rubrum*) E(S,f)  
 Mulberry (*Morus rubra*) E(S)  
 Sumac (*Rhus copallina*)-E(S)  
 Baldcypress (*taxodium distichium*)  
 Eastern Cottonwood (*Populus deltoides*)  
 Chinaberry (*Melia azederach*)-I  
 Gum Bumelia (*Bumelia lanuginosa*)  
 Black Willow (*Salix nigra*)M  
 Arizona Ash (*Fraxinus velutina*)  
 Chinese pistache (*Pistachia chinensis*)  
 American Elm (*Ulmus americana*)  
 B'ois D'arc (*Maclura pomifera*)

## Shrubs

Yaupon (*Ilex vomitoria*)-E(t,WL)  
 Eastern baccharis (*Baccharis halimifolia*)  
 Desert Willow (*Chilopsis linearis*) WL  
 American Beautyberry (*Callicarpa americana*)(M,E)  
 Chinese privet (*Ligustrum sinense*) I  
 Rattlebush (*Sesbania drummondii*)

I - Indicates Invasive Species  
 E - Edible  
 t - tea from dried leaves  
 S - seed,fruit, acorn  
 Sp - Spice

LS - Leaves,seed  
 R - Roots  
 f - flowers  
 M - medicine  
 WL - wildlife



BRYAN - Regional Park

**Forbs**

- Bitterweed (*Helinium amarum*)
- Mistflower (*Eupatorium coelestinum*)
- Giant Ragweed (*Ambrosia artemesiifolia*)
- Goldenrod (*Solidago altissima*)-E(t)
- Pigweed (*Amaranth spp.*) E(s,l,WL)
- Annual Aster (*Aster subulatus*)
- Summer grape (*Vitis aestivalis*) E(S)
- Trumpet Creeper (*Campsis radicans*)
- Virginia Creeper (*Parthenocissus quinquefolia*)
- Peppervine (*Ampelopsis arborea*)E(S)
- Greenbriar (*Smilax spp.*)E (L,R)WL
- Curly dock (*Rumex spp.*)E(l,S)WL
- Wooly croton (*Croton capitatus*)
- Poison Ivy (*Rhus radicans*)
- Dogfennel (*Eupatorium cappifolium*)
- Dewberry (*Rubus spp.*)-E(S)
- Boneset (*Eupatorium serotinum*) (M)
- Croton (*Croton capitatus*)WL
- Hempvine (*Mikania scandens*)WL

**Grasses**

- Longleaf Uniola (*Chasmanthium sessiliflorum*)
- Texas Wintergrass (*Stipa leucotricha*)
- Low Panicum (*Dichantherium*)
- Brownseed paspulum (*Paspulum plicatulum*)
- Carpetgrass (*Axonopus affinis*)
- Little bluestem (*Schyzacharium soparius*)
- Fall witchgrass (*Leptoloam cognatum*)
- Sedges (*Carex spp.*)
- Rushes (*Juncus spp.* )
- Bahiagrass (*Paspulum notatum*)
- Vasey grass (*Paspulum urvellei*)
- Knotroot bristlegrass (*Setaria geniculata*)
- Virginia Wildrye (*Elymus virginicus*)
- Sandbur (*Centrus pauciflorus*)
- Cattails (*Typha spp.*)ERWL
- Beakrush(*Rhyncospora spp.*)
- Yellow nutsedge (*Cyperus esculenta*)WL



BRYAN - Regional Park

# Site Analysis - Summary

## TOPOGRAPHY

The elevation profile across the site generally drains from west to east with an overall change in elevation of approximately 40 feet. There are three main drainage that feed into the lake. Smaller variations across the site are due to the intentional grading of the property to create contours for golf course fairways and hazards.

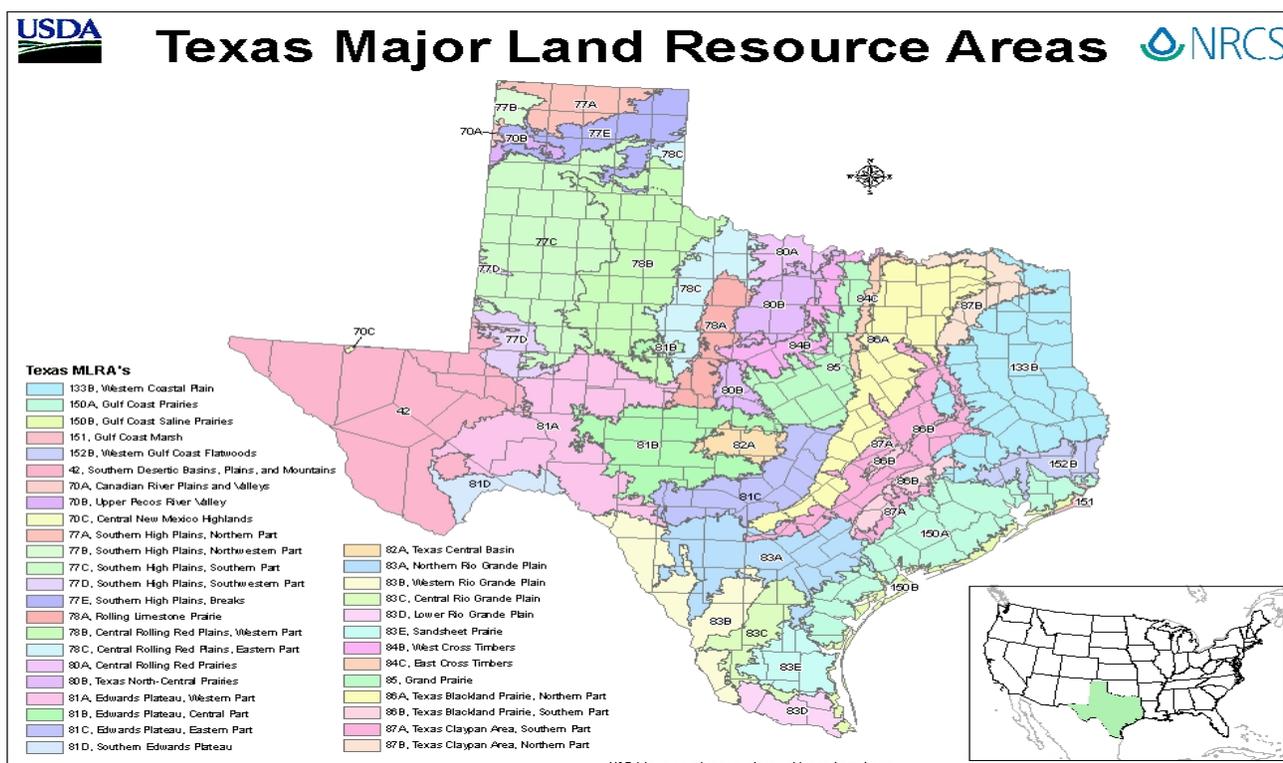


PROGRAM STATEMENT

## MAJOR LAND RESOURCE AREAS

### 87A—Texas Claypan Area, Southern Part

This area is entirely in south-central Texas (fig. 87A-1). It makes up about 10,535 square miles (27,295 square kilometers). The towns of Ennis, Fairfield, Groesbeck, Franklin, Centerville, Madisonville, Rockdale, Bryan, College Station, Bastrop, Giddings, Luling, and Gonzales are in this MLRA. Interstate 45 crosses the northern part of the area, and Interstate 10 crosses the southern part. A number of State parks are throughout this area. They are commonly associated with reservoirs.



**Geology:** This area is underlain by luviodeltaic and marine sediments of Tertiary age. Tertiary units include the Wilcox Group, Carrizo Sand, Reklaw Formation, Queen City Sand, Weches Formation, Sparta Sand, and Yegua Formation of Eocene age; the Jackson Group of Eocene and Oligocene age; and the Catahoula Formation of iocene age. Sediments in these Tertiary units consist of interbedded sandstone, siltstone, and shale and unconsolidated to weakly coherent sands, silts, and clays. The boundaries of these Tertiary sediments trend generally parallel to the Texas Gulf Coast and are incised by several major stream systems. Quaternary stream terraces and alluvium are associated with the meander belts of the major rivers.

**Climate:** The average annual precipitation in this area is 35 to 44 inches (890 to 1,120 millimeters). Most of the rainfall occurs in spring and fall. The average precipitation during the freeze-free period is about 29 inches (735 millimeters). The average annual temperature is 66 to 69 degrees F (19 to 21 degrees C). The freeze-free period averages about 295 days and ranges from 270 to 320 days.

## Site Analysis - Summary

**Water:** Following are the estimated withdrawals of freshwater by use in this MLRA:

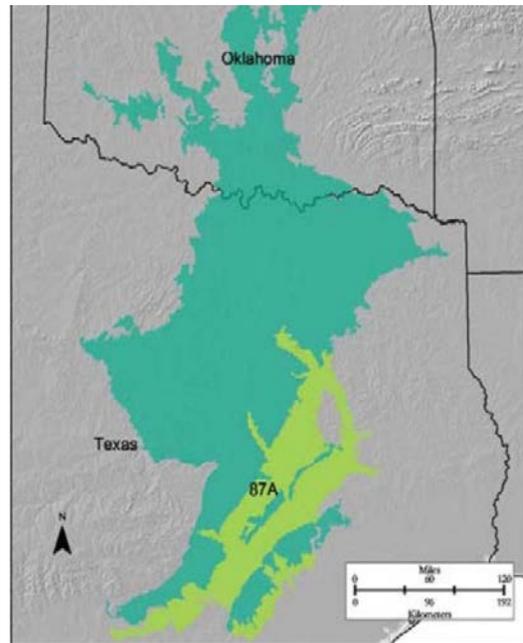
- Public supply—surface water, 7.2%; ground water, 6.3%
- Livestock—surface water, 3.3%; ground water, 1.7%
- Irrigation—surface water, 52.6%; ground water, 26.3%
- Other—surface water, 1.3%; ground water, 1.3%

Total withdrawals average 76 million gallons per day (290 million liters per day). About 36 percent is from ground water sources, and 64 percent is from surface water sources. In most years the moderate rainfall is adequate for crops and pasture; however, summer droughts commonly reduce crop yields. Large reservoirs on the major streams provide some municipal water. The water from these reservoirs is supplemented by some ground water. The reservoirs primarily provide water for irrigation, but they are also used for recreation. Small farm ponds are an important source of water for farm use (primarily livestock) and recreation. The surface water is of good quality and is suitable for almost all uses.

**Physiography:** This area occurs in the West Gulf Coastal Plain Section of the Coastal Plain Province of the Atlantic Plain. It is a nearly level to gently sloping plain that is dissected by broad river systems. Gently sloping uplands merge into narrow valleys that have sloping valley walls. Large rivers with broad, long valleys cross the area. Elevation ranges from 200 to 750 feet (60 to 230 meters), increasing gradually from south to north. Slopes generally range from 1 to 8 percent.

The extent of the major Hydrologic Unit Areas (identified by four-digit numbers) that make up this MLRA is as follows:

- Lower Brazos (1207), 39 percent;
- Trinity (1203), 25 percent;
- Central Texas Coastal (1210), 21 percent;
- Lower Colorado-San Bernard Coastal (1209), 13 percent;
- Nueces-Southwestern Texas Coastal (1211), 2 percent.



*Land Resource Area (MLRA) known as the 87A - Texas Claypan Area, Southern Park*

From north to south, the major rivers crossing this area are the Trinity, Navasota, Brazos, Colorado, Lavaca, and Guadalupe Rivers. A number of large reservoirs are in the area.

**Biological Resources:** This area supports mixed tall and mid prairie grasses. Little bluestem is the dominant species. Additional herbaceous species include sedges, Virginia and Canada wildrye, rustseed paspalum, beaked panicum, switchgrass, Indiangrass, big bluestem, eastern gamagrass, sideoats grama, and vine mesquite. Many forbs grow in the area, including tickclover, trailing wildbean, lespedezas, and gayfeather. Areas along the major rivers and streams support a savanna plant community. Oak, elm, cottonwood, hackberry, and pecan trees produce a canopy cover of about 30 percent.

Some of the major wildlife species in this area are whitetailed deer, javelina, coyote, fox, bobcat, raccoon, skunk, opossum, jackrabbit, cottontail, turkey, bobwhite quail, scaled quail, white-winged dove, and mourning dove.

*Source: Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin; United States Department of Agriculture Handbook 296*

## ECOLOGICAL SYSTEMS CLASSIFICATION

The Texas Parks and Wildlife Department (TPWD) and Texas Natural Resources Information System (TNRIS) conducted a State-wide project to map and classify the primary ecological systems in Texas through the evaluation of remote sensing and ground-truthing of vegetation types. These data were queried for the Bryan Regional Park property to identify the vegetation types present on the site.

The following representative classification descriptions were derived from the Texas Vegetation Classification Project. Interpretive Booklet for Phase II, Texas Parks and Wildlife Department and Texas Natural Resources Information System:

### Post Oak Savanna: Post Oak Motte and Woodland

Description of Mapped Type: Post oak is the most frequent dominant tree species within this mapped type. Cedar elm, blackjack oak, sugar hackberry, water oak, southern red oak (east), black hickory, and plateau live oak may all be present in the overstory. Mesquite (west), common persimmon, yaupon, possumhaw, winged elm, gum bumelia, American beautyberry, and eastern redcedar are common shrubs.

### Post Oak Savanna: Savanna Grassland

Description of Mapped Type: A variety of grasslands are circumscribed within this type, and disturbance or tame grasses such as Bermudagrass and Bahia grass are common dominants. Little bluestem, Indiangrass, silver bluestem, Texas wintergrass, tall dropseed, and brownseed paspalum are native species that may be important. Common broomweed, western ragweed, and hog croton are common weedy herbaceous species. Post oak, blackjack oak, water oak, and yaupon are common woody species and may form sparse woodlands or shrublands in some areas.

### Central Texas: Floodplain Herbaceous Vegetation

Description of Mapped Type: A variety of generally tame or successional grasslands and forblands are mapped in this type, with Bermudagrass, Johnsongrass, and Bahia grass all common. Successional forbs such as hog croton and giant ragweed are also common. Sparse tree cover including black willow, american elm, water oak, green ash, and live oak may occur and yaupon and eastern redcedar are common shrubs.

### Central Texas: Riparian Herbaceous Vegetation

Description of Mapped Type: These areas are characterized by managed pastures in a variety of conditions, and may contain species such as Bermudagrass, Johnsongrass, little bluestem, western ragweed, common broomweed, Virginia wildrye, and Texas wintergrass.

### Native Invasive: Deciduous Woodland

Description of Mapped Type: This broadly-defined type is mapped on prairie soils and may contain sugar hackberry, cedar elm, water oak, sweetgum, winged elm, and yaupon as important species. Chinese tallow and loblolly pine may be present in the southeast.

### Barren

Description of Mapped Type: This type includes areas where little or no vegetation cover existed at the time of image data collection. Large areas cleared for development are included, as well as rural roads and buildings and associated clearings in primarily rural areas. Stream beds with exposed gravel or bedrock, rock outcrops, quarries, mines, and year-round fallow fields are also included.

### Open Water

Description of Mapped Type: Most open water in Phase 2 consists of reservoirs, bays, large ponds, canals, and the Gulf of Mexico, although larger rivers are also mapped as open water.

### Grass Farms

Description of Mapped Type: Areas mapped as this type include moist soils with fast growing grasses, golf courses, and managed hay meadows with Bahia grass, Bermudagrass, or Johnsongrass.

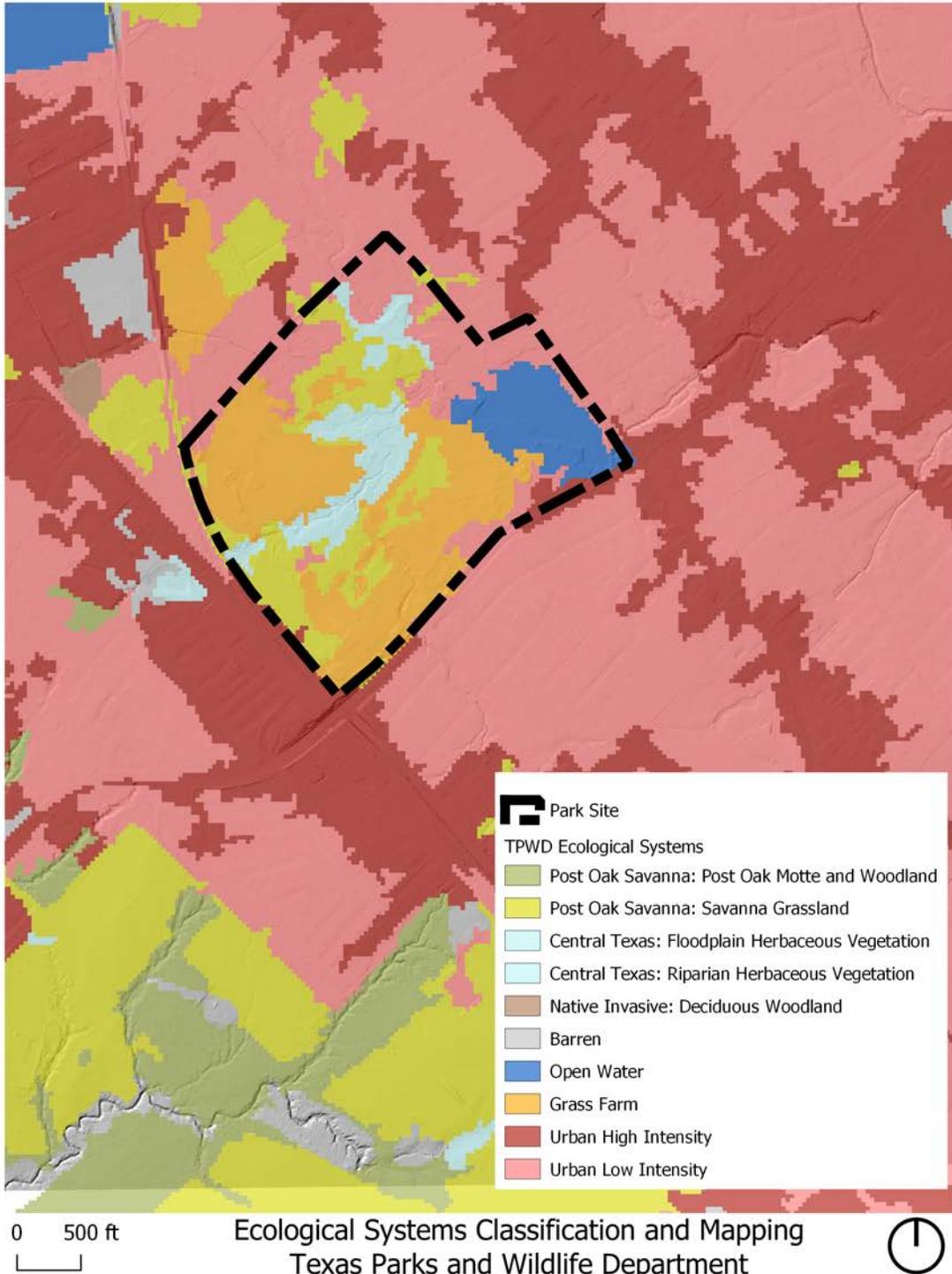
# Site Analysis - Summary

## Urban High Intensity

Description of Mapped Type: This type consists of built-up areas and wide transportation corridors that are dominated by impervious cover.

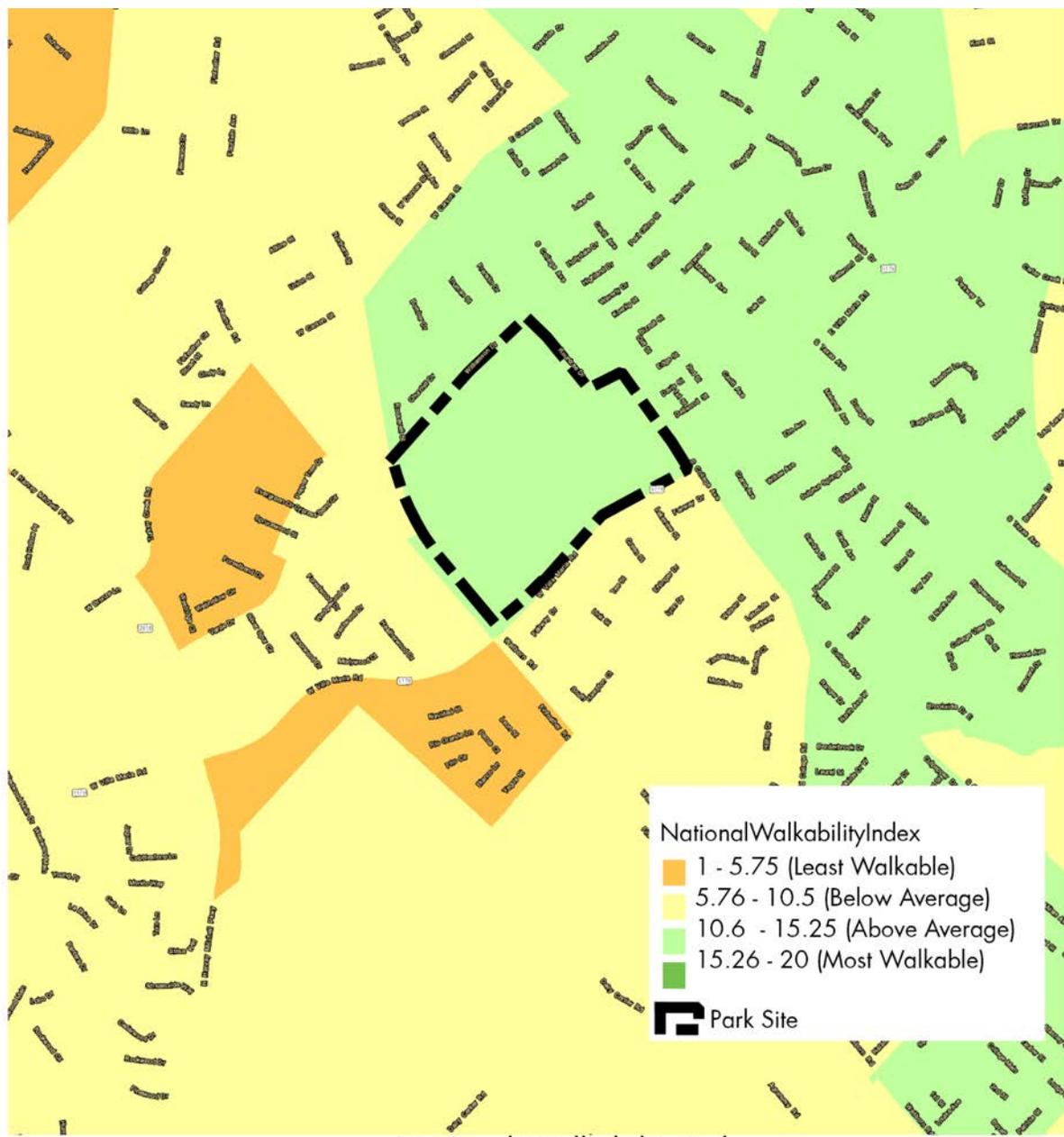
## Urban Low Intensity

Description of Mapped Type: This type includes areas that are built-up but not entirely covered by impervious cover, and includes most of the non-industrial areas within cities and towns



### WALKABILITY INDEX

The Walkability Index dataset characterizes every Census 2010 block group in the U.S. based on its relative walkability. Walkability depends upon characteristics of the built environment that influence the likelihood of walking being used as a mode of travel. The Walkability Index is based on the EPA's previous data product, the Smart Location Database (SLD). Block group data from the SLD was the only input into the Walkability Index, and consisted of four variables from the SLD weighted in a formula to create the new Walkability Index. This dataset shares the SLD's block group boundary definitions from Census 2010. The methodology describing the process of creating the Walkability Index can be found in the documents located at <https://edg.epa.gov/data/Public/OP/WalkabilityIndex.zip>. \* <https://catalog.data.gov/dataset/walkability-index>



0 500 ft

National Walkability Index  
Bryan Regional Park

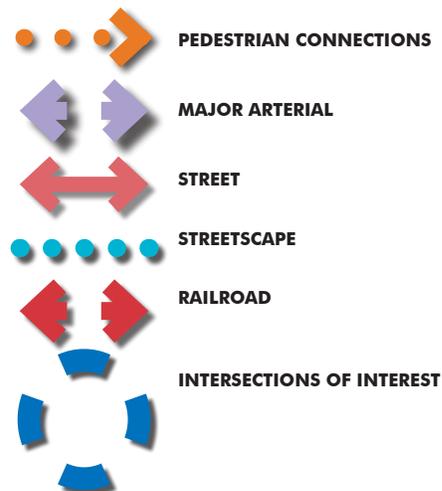


# Site Analysis - Summary



*Preliminary Program Areas based on site features and staff/public input.*

PROGRAM STATEMENT



## SITE OPPORTUNITY ANALYSIS

This 148-acre site (including acreage from both Williamson Park and Travis B. Bryan Municipal Golf Course) serves as a significant landmark within the City of Bryan. Previously utilized as a golf course, the future regional park provides an exciting opportunity to serve as a regional attraction, encourage walkability with the adjacent residential neighborhoods, and offers potential pedestrian and bicycle pathways within the Mid-Town Corridor to Downtown.

Finfeather Road, Williamson Road, South College Avenue, and West Villa Maria Road border the park site. The major intersections of West Villa Maria at South College Avenue and Finfeather Road are important opportunities for the creation of unique landmarks that may include park signage, sculptures, water features, and landscaping. These adjacent major arterial roads also provide the opportunity for enhanced street design guidelines and improved safety for the neighborhood.

Based on traffic analysis and site conditions, the proposed indoor recreation center is best located with an entrance from West Villa Maria Road. Adjacent to this facility and along the southern shore of the lake is an ideal location for family recreation activities. The lake is a significant site amenity, and the opportunity exists to preserve and enhance the northern and western shorelines and riparian corridors as habitat for birds and educational signage. The relationship of the existing Travis Park to the northwest creates an ideal location for expanded active recreation in this area of the park. The existing oil pad site will be further analyzed and possibly re-purposed for parking, maintenance facility, or a BMX track if a highly activated park design is selected by the City.

The inherent natural beauty of the site and abundance of native trees and plants, riparian corridors in a graceful pond setting, creates the opportunity for pedestrian trails and connections throughout the site. The existing golf cart pathways provide important internal site circulation routes for the new park facilities and serve as potential precedent circulation routes for new trail development. Transition areas will offer playgrounds, picnic areas and space for nature play.

This unique site provides the City with an opportunity to create an amazing urban park that will serve citizens of Bryan, attract visitors to the community and act as a catalyst for positive redevelopment of the Mid-Town Corridor.



## 03 Market Analysis- Summary

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# Market Analysis - Summary

## METHODOLOGY

Facilities sharing program elements at the scale of the potential program for the new Bryan park were evaluated within the Study Area.

The Study Area included a 100-mile radius around Bryan. This Study Area included communities as far north as Corsicana, as far northeast as Crockett, as far east as Livingston, as far southeast as Baytown, as far southwest as El Campo, as far west as beyond the Austin Metro area, and as far northwest as Gatesville and the entire Waco area.

The following types and scales of programs at facilities in the Study Area included:

- **Indoor Facilities**
  - » Indoor Basketball Arena (minimum 3 courts)
  - » Indoor Volleyball (minimum 3 courts)
  - » Pickleball Courts
  - » E-Gaming
  - » Soccer/Futsal Facilities
  - » Indoor Arenas generally
- **Outdoor Sports**
  - » Baseball/Softball Diamonds (minimum 3)
  - » Outdoor Flat Field (rectangular field) Complexes (minimum 3)
  - » Archery Facilities
- **Adventure**
  - » BMX Tracks
  - » Veloways
  - » Climbing Walls
  - » Water Park
- **Nature Focused Activities**
  - » Outdoor Learning
  - » Butterfly Gardens
  - » Aviaries
  - » Birding Sites

The search was oriented towards identifying scaled, multi-field/court sites capable of hosting tournaments. Furthermore, a search for Adventure-oriented and Nature Focused amenities in the Study Area was conducted due to the relevance to the Bryan Regional Park and intense interest in such amenities expressed by a broad spectrum of diverse stakeholders.

Finally, ownership for each facility was also determined in order to delineate between those owned privately, by municipalities, universities, school districts, etc. Specifically, school district owned facilities were largely excluded from the study as they do not necessarily host non-school tournament events.

## FINDINGS

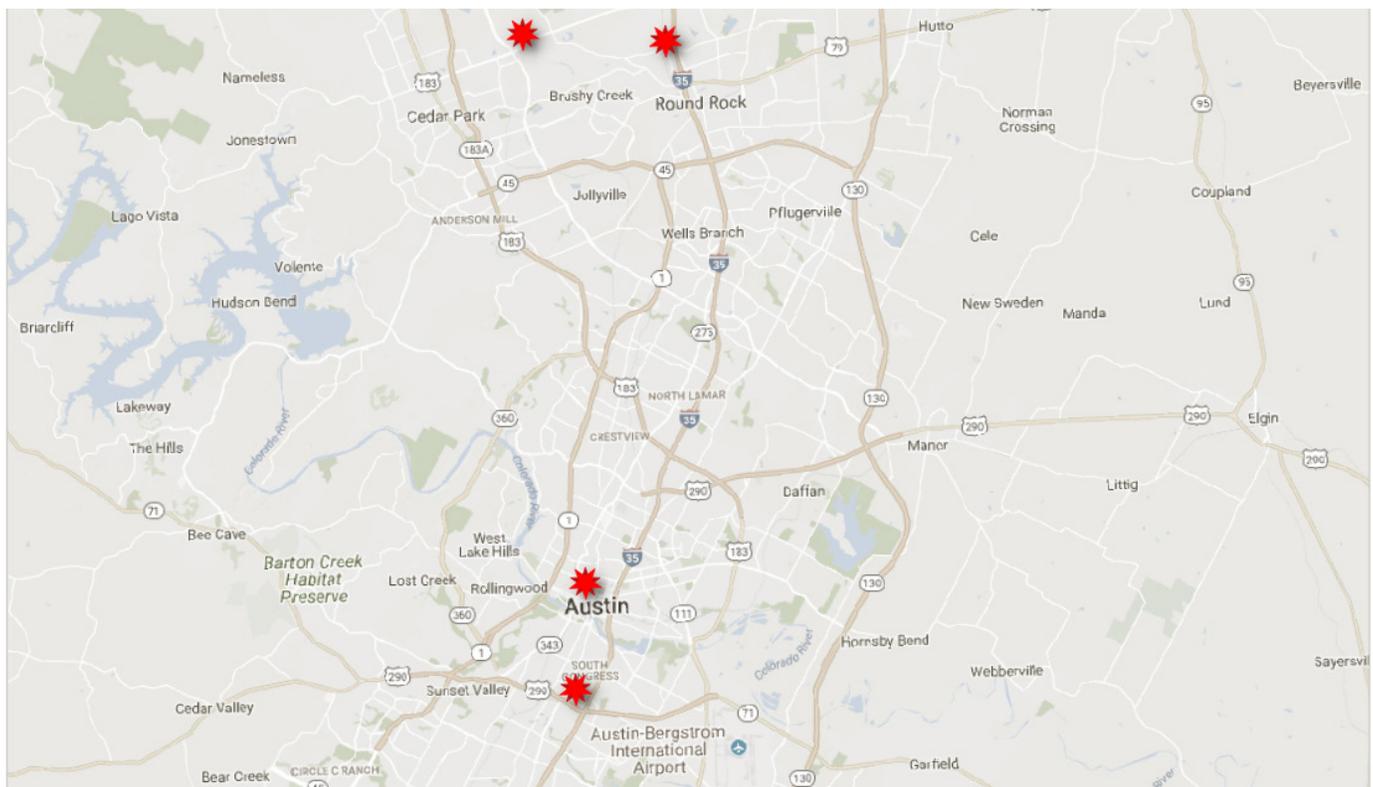
### Indoor Facilities

- Indoor Basketball Arena (minimum 3 courts)
- Indoor Volleyball (minimum 3 courts)
- Pickleball Courts
- E-Gaming
- Soccer/Futsal Facilities
- Indoor Arenas generally

Hundreds of cities within the Study Area were searched to find indoor facilities potentially capable of hosting tournaments and events of the scale discussed for the new Bryan Regional Park. Table 1 lists those facilities owned privately, by municipalities, or counties. School district or university-owned facilities were excluded from results.

Table 1 - # of Indoor Facilities in Study Area	
Facility Type	# in Study Area
Indoor Basketball Arena (minimum 3 courts)	4
Indoor Volleyball (minimum 3 courts)	4
Pickleball Courts	3
E-Gaming	3
Soccer/Futsal Facilities	22

Indoor basketball and volleyball facility counts were numerous and broad across the Study Area. However, when minimum thresholds on courts and ownership were incorporated, counts decreased substantially. Only four indoor facilities consisting of at least 3 courts were found in the Study Area. Two are owned by the City of Austin, one by City of Cedar Park, and the fourth is the Round Rock Sports Center (see Detail Table A). Please note that this study treats basketball courts as proxies for volleyball courts.

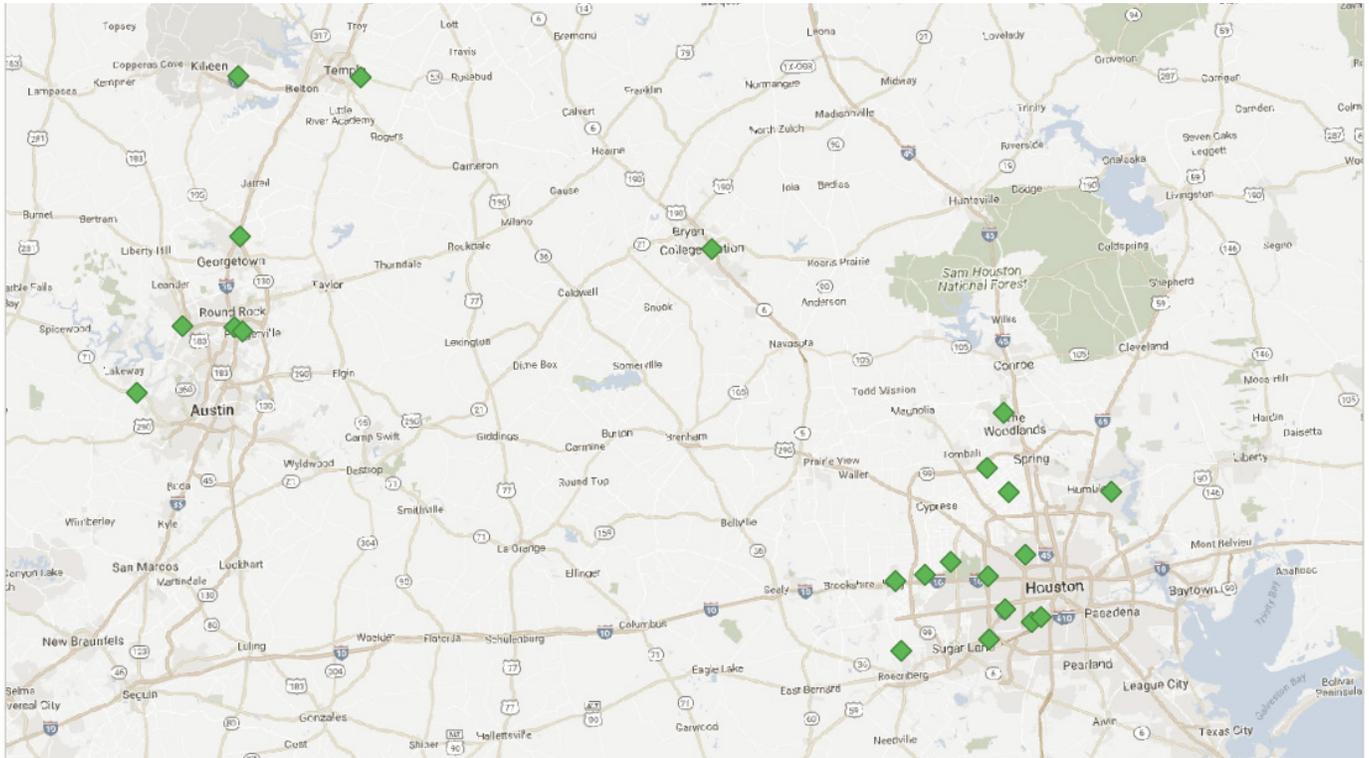


Indoor Basketball Arenas in Study Area (min. 3 courts)

There are few pickleball-dedicated facilities as most pickleball is played on basketball courts. All e-gaming facilities were located in city-owned recreational facilities primarily in the form of game rooms.

22 indoor soccer/futsal facilities were found in the Study Area (See Detail Table B). All but one are privately owned (exception being the Woodlands Township Recreation Center).

# Market Analysis - Summary



*Indoor Soccer Facilities in Study Area*

**Conclusion** – the market for a competitive indoor facility capable of hosting basketball, volleyball, pickleball, cheerleading, and other indoor competitions is fairly wide open within the study area. A facility in Bryan would be highly competitive and utilized.

## Outdoor Sports

- Baseball/Softball Diamonds (minimum 3)
- Outdoor Flat Field (rectangular field) Complexes (minimum 3)
- Archery Facilities

**Table 2 - # of Outdoor Sports Facilities in Study Area**

Facility Type	# in Study Area
Baseball/Softball Diamonds (minimum 3)	174
Outdoor Flat Field Complexes (minimum 3)	88
Archery Facilities	23

There are 174 baseball and softball diamonds with at least 3 fields in the Study Area (Detail Table C). There are 80 facilities with 6 or more fields. It is important to note that many of these complexes are not necessarily set up for tournament play. Many are Little League parks or city complexes designed solely to serve the local community.

88 flat-field complexes were found in the Study Area (Detail Table D). 53 of these facilities are privately owned with a heavy emphasis on soccer-exclusive activity. Of the publicly owned (non school/university) facilities (Detail Table E), most are oriented to providing support to local community sports leagues or open play with few having tournament hosting capabilities or amenities.

Archery facilities in the study area were surprisingly high. All but 3 of the located open field ranges were privately owned.

**Conclusion** – the market for a tournament level facility consisting of both baseball/softball diamonds and flat-field sports is robust and openings exist for Bryan to compete with a top notch facility. In addition to field counts, amenities are important differentiators when competing for larger, statewide tournaments. Furthermore, the full menu of amenities in the park are essential to increasing tournament and event visitor counts while also incentivizing overnight stays which lead to truly impactful direct economic benefit dollars to Bryan.

**Adventure**

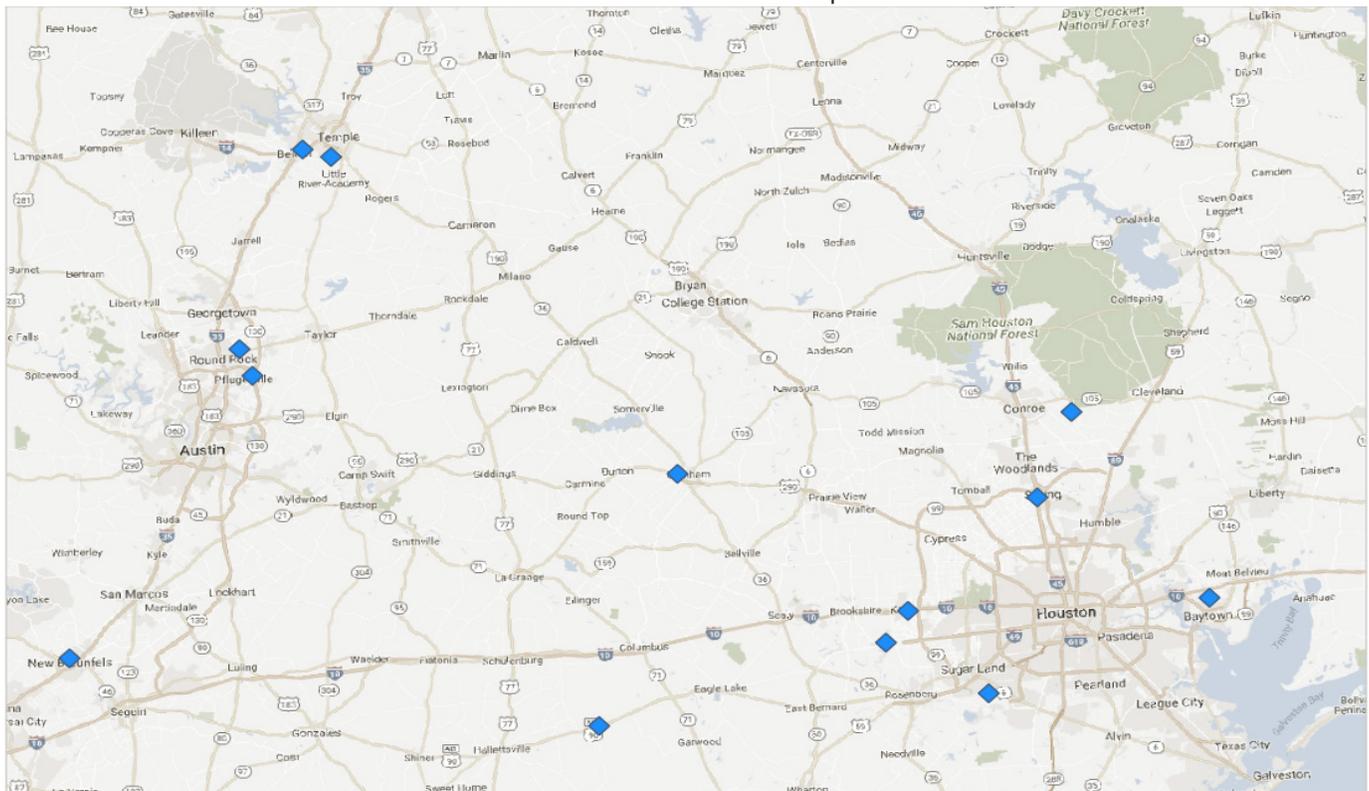
- BMX Tracks
- Veloways
- Climbing Walls
- Water Park

21 BMX tracks were located in the Study Area (Detail Table F). However, several of the publicly owned facilities are actually bike parks taking on the form of skate parks for trick and ramp riding rather than true BMX racing.

The lone veloway in the region is Veloway Park in Austin. Bike riders are increasingly looking for more dedicated space opportunities as roadways are often too narrow to accommodate the growth in biking demand.

29 climbing walls accessible to the general public were found in the study area (Detail Table G). However, only 2 are publicly owned. The remainder are privately owned. Importantly, leadership and “ropes” courses were also encompassed in a handful of these private facilities.

Table 3 - # of Adventure Sports Facilities in Study Area	
Facility Type	# in Study Area
BMX tracks	21
Veloways	1
Climbing Walls	29
Water Park	13



Water Parks in the Study Area

## Market Analysis - Summary

Of the 13 water parks found in the Study Area, only 2 are publicly owned. These facilities are huge draws for visitors and local communities with a positive financial track record for host communities.

Conclusion – the potential for hosting adventure sports in the new Park could provide an even greater draw for outside visitors and overnight stays. Climbing walls and a waterpark in particular would certainly incentivize more overnight stays and larger traveling contingents for tournament activities taking place in other areas of the park.

### **Nature Focused Activities**

- Outdoor Learning
- Butterfly Gardens
- Aviaries
- Birding Sites

Only 10 aviaries exist in the entire Study Area and include only 2 city-owned facilities. The opportunity for mixing in nature-centric activities and amenities to the new park design would be extremely beneficial to adding diversity to the park and attracting an entirely different set of out-of-town visitors.

**DETAIL TABLE A-INDOOR BASKETBALL/VOLLEYBALL FACILITIES (Min 3 courts)**

<b>FACILITY</b>	<b>BASKETBALL</b>	<b>VOLLEYBALL</b>	<b>Ownership</b>
Austin Sports Center South Austin	10	10	Private
Austin Sports Center Cedar Park	8	8	Private
Austin Recreation Center	6	2	City
Round Rock Sports Center	6	12	City

**DETAIL TABLE B-INDOOR SOCCER FACILITIES**

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Arroyo's Indoor Soccer	1	Private
Austin Indoor Soccer Center	1	Private
Avila Soccer Round Rock	1	Private
Britannia Soccer Park	1	Private
D1 Nation Sports	1	Private
Dynamic Indoor Soccer	1	Private
Gametime Indoor Soccer Arena	1	Private
Hill Country Indoor Sports and Fitness	1	Private
JC Sports Houston	1	Private
Northwest Indoor Soccer Center	1	Private
NRG Stadium	1	Private
Pro Soccer	1	Private
Pro's Katy Indoor Soccer	1	Private
Rise Soccer Club: Futsal Courts	3	Private
Shadow Oaks Recreation Association (SORA)	1	Private
SoccerZone Lakeline	1	Private
Southwest Indoor Soccer	1	Private
Sports 59	1	Private
Texans Indoor Soccer	1	Private
uScore Soccer	1	Private
West Houston Indoor Soccer	1	Private
Woodlands Township Recreation Center	1	City

# Market Analysis - Summary

**DETAIL TABLE C-BASEBALL/SOFTBALL DIAMONDS (Min 3 fields)**

Facility	# of Fields	Ownership
Meyer Park	26	County
Oak Ridge Woodlands Area Little League (ORWALL)	18	County
Katy Park	16	County
Bear Creek Pioneers Park	15	County
Memorial Ashford Little League	15	Private
Carl Barton Jr Park	13	City
George Park	13	City
Bayland Park	12	County
Gene Campbell Sports Park	12	Private
Spring Klein Park	12	Private
Bayer Park	11	County
El Franco Lee Park	11	County
PROGRAM 15   Marucci Houston at Baseball USA	11	Private
Southeast Metropolitan Park	11	County
Community Park Missouri City	10	City
Ed Rinehart Sports Complex	10	County
Ipes Sports Park	10	County
Lindsay/Lyons Park and Sports Complex	10	County
PALESTINE Athletic Complex	10	City
Pecan Park	10	City
Sta-Mo Sports Complex	10	City
Taylor Regional Park & Sports Complex	10	City
Town and Country Sports	10	Private
Willis Youth Athletic Association	10	Private
Cedar Park Youth League	9	Private
Collins Park	9	City
First Colony Baseball Park	9	City
Imperial Park Recreation Center	9	City
Jimmy Burke Activity Center	9	City
Lake Air Little League	9	Private
Mont Belvieu City Park	9	City
Rise Soccer Club: South Campus Field #1	9	Private
SoccerZone Lakeline	9	Private
West Montgomery County Park	9	County
Channelview Sports Complex	8	County
City of Brenham - Hohlt Park	8	City
Dad's Club Sports Park	8	County

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Dubl-R Fields at Riverbend Ballpark	8	City
Dyess Park	8	County
East Metro Park	8	County
Four Seasons Park	8	County
Harker Heights Community Park	8	City
I.T. May Park	8	County
Kate Barr Ross Memorial Park	8	City
Killeen Family Recreation Center	8	City
Lake Madison Park	8	City
Lockhart Soccer Complex	8	City
Northeast Metro Baseball	8	County
Premier Baseball of Texas	8	Private
San Gabriel Park	8	City
Scrap Yard Sports	8	Private
Sienna Sports Complex	8	Private
Tomball Little League Fields	8	Private
Wayne Gray Sports Complex	8	City
Zlotnik Park at Legacy Fields	8	City
Bryan Regional Athletic Complex	7	City
Camp Comal	7	City
Crosby Sports Complex	7	County
Daniels Park	7	City
Killeen Athletic Complex( KPR Fields)	7	City
New Braunfels Little League	7	Private
Pflugerville Little League	7	Private
Silver Slugger Complex	7	City
Sugar Land City Park	7	City
Balcones Youth Sports	6	Private
Centennial Park	6	City
Cleveland Municipal Sports Park	6	City
Cleveland Youth Football Fields	6	Private
Franklin Ranch Community Park	6	City
Gold Glove Complex	6	City
Hallettsville City Park	6	City
Heritage Park	6	City
Henderson Park Bryan	6	City
Houston Memorial Park	6	City

# Market Analysis - Summary

Facility	# of Fields	Ownership
Lockhart City Park	6	City
Magnolia Baseball Fields	6	County
Paul D Rushing Park	6	County
Settlers Way Park	6	City
Spencerview Athletic Complex	6	City
Stuart J. Beebe Athletic Complex	6	City
Veterans Park and Athletic Complex	5	City
Airport Park Complex	5	City
Doss Park	5	County
Fairfield Sports & Fitness Center	5	Private
Green-Dickson Baseball Park	5	City
Groesbeck City Parks	5	City
Hempstead City Park	5	City
Kocurek Field	5	Private
Magnolia Youth Park	5	County
North Austin Optimist	5	Private
Rockdale Little League Baseball Fields	5	Private
Round Rock Sertoma Girls Softball	5	Private
Schonest - Welt Park	5	City
Seabrook Sports Complex	5	County
The Rac	5	Private
Walnut Creek Metropolitan Park	5	City
West University Little League	5	Private
A. J. Mercer Complex	4	City
Alden Bridge Sports Park	4	City
Bay Area Park	4	County
Boys & Girls Club of America	4	Private
BP&W PARK	4	City
Buda Sportsplex	4	City
Burroughs Park	4	County
Columbus Little League	4	Private
Croom Park 1	4	County
Cullen Park	4	City
Cy Young Complex	4	City
Cy-Fair Sports Complex	4	Private
Dow II Park	4	County
Elgin Little League	4	Private
Farrington Park	4	City

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Freedom Park	4	County
Giddings Veterans Park	4	City
Highlands Sports Complex	4	County
Katy City Park	4	City
Klein Park	4	County
Linda Anderson Park	4	City
Marvin Norcross Stadium	4	Private
McMaster Athletic Complex	4	City
Mexia City Park	4	City
New Territory Sports Complex	4	Private
Northam Baseball Complex	4	City
Optimistic Softball PARK	4	Private
Pasadena Athletics/PAL Gymnasium	4	City
Pep Mueller Park	4	County
ROBINSON LITTLE LEAGUE#2	4	Private
Rockdale Girl's Softball Field	4	City
Salado Youth Sports Fields	4	Private
Seabourne Creek Regional Sports Complex	4	City
Sheldon Sports Complex	4	County
Shiner Starplex	4	Private
South Post Oak Park	4	County
Stephen C. Beachy Central Park	4	City
Strawberry Park	4	City
Texas Baptist Childrens Home	4	Private
The Farm League Park	4	Private
Travis Park Bryan	4	City
Triple Crown Complex	4	City
Triple Play Sportsplex	4	Private
Wilson Park Softball Complex	4	City
A.V. 'Bull' Sallas Park	3	County
Alexander Deussen Park Baseball Fields	3	County
Bane Park	3	County
Ben Briar Park	3	City
Benbrook Ranch Park	3	City
Bull Branch Park	3	City
Candlelight League	3	Private
Chisholm Trail Park	3	City
City of Brenham - Henderson Park	3	City

# Market Analysis - Summary

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Community Park Corsicana, TX	3	City
Cy-Fair Lions Park	3	County
Deer Park Adult Softball Fields	3	City
Doris Miller Department of Veterans Affairs Medical Center WACO VA Field	3	Private
Dow One Park	3	County
Dow Park Athletic Complex	3	City
Fayette County Fairgrounds	3	City
Fritz Park	3	City
Harriman Park	3	City
Kipper Mease Sports Complex	3	County
North Little League Park	3	City
Northside Park	3	City
Riley Chambers Park	3	County
Rogers City Park	3	City
Smithville Little League Fields	3	Private
Steven Bennett Park	3	City
Sunset Park	3	City
Texas Prospects Baseball Academy	3	Private
The Woodlands Christian Academy	3	Private
Travis County Softball Field Complex	3	County
VPW Park	3	City
W. E. "Bill" Crowley Park	3	County
Warrior Baseball	3	Private
Xtra Cuts, LLC - Batting Cages	3	Private

<b>DETAIL TABLE D-FLAT FIELDS (Min 3 fields)</b>		
<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Circle C Ranch Metropolitan Park on Slaughter Creek	27	City
Dyess Park	25	County
Town and Country Sports	22	Private
Katy Park	21	County
Eldridge Park	20	City
Veterans Park and Athletic Complex	18	City
Bear Creek Pioneers Park	18	County
Northeast Metropark Soccer Field	18	County
Dad's Club Sports Park	17	County
Crosby Park	16	County
HEB Soccer Complex	14	City
Sienna Sports Complex	13	Private
Community Park Missouri City	12	City
Heart of Texas Soccer Association	12	Private
Independent Order of Odd Fellows Park (I.O.O.F. Park)	12	City
Matzke Park	12	County
Summit Soccer Complex	11	City
El Franco Lee Park	10	County
HYSA Texans Park at Riverwalk	10	Private
Round Rock Multipurpose Complex	10	City
West University Little League	10	Private
Bryan Regional Athletic Complex	9	City
Burroughs Park	9	County
Carl Barton Jr Park	9	City
New Territory Sports Complex	9	Private
Rise Soccer Club: South Campus Field #1	9	Private
Cullen Park	8	City
Elizabeth Milburn Park	8	City
Lonestar Soccer Club Austin#1	8	Private
Southwest Williamson County Regional Park	8	County
The Farm League Park	8	Private
Alden Bridge Sports Park	7	City
Bear Branch Sportsfields	7	City
Benbrook Ranch Park	7	City
City of Brenham - Hohlt Park	7	City
Houston Sports Park	7	Private
OSP Field 1	7	City

# Market Analysis - Summary

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Roane Park	7	City
Round Rock Soccer Association	7	Private
Salado Youth Sports Fields	7	Private
YMCA of Palestine Alex Patel Soccer Complex	7	Private
Zube Park DGC	7	County
Dow Park Athletic Complex	6	City
Georgetown Soccer Association	6	Private
Killeen Family Recreation Center	6	City
Korompai Soccer Complex	6	City
Wells Point Park	6	City
City of Brenham - Jackson Street Park	5	City
Cy-Fair Sports Complex	5	Private
George Park	5	City
Gosling Sports Fields	5	City
Heritage Park	5	City
Lonestar Soccer Club Austin#2	5	Private
South County Football League (SCFL) At Gullo Park	5	Private
West Sugar Land Little League Club Field	5	Private
Barcelona Soccer Excellence Academy	4	Private
Buda Sportsplex	4	City
Burnett Bayland Park Soccer Field	4	City
Cleveland Area Youth Soccer Association (CAYSA)	4	Private
East Metro Park	4	County
Kate Barr Ross Memorial Park	4	City
Magnolia Youth Park	4	County
Mont Belvieu City Park	4	City
North Shore Park	4	County
Pfennig Park	4	City
Rise Soccer Club: McGovern Park	4	Private
Simmang Park And Soccer Fields	4	City
South Post Oak Park	4	County
Southeast Metropolitan Park	4	County
Stuart J. Beebe Athletic Complex	4	City
Twin Lakes Family YMCA	4	Private
A.V. 'Bull' Sallas Park	3	County
Austin Texans Soccer Club	3	Private
Britannia Soccer Park	3	Private
Broughton Baseball Complex	3	Private

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Brushy Creek Sports Park	3	City
Franklin Ranch Community Park	3	City
Houston Memorial Park	3	City
Lake Air Little League	3	Private
Lonestar Soccer Club Austin#3	3	Private
McMaster Athletic Complex	3	City
Milan Soccer	3	Private
Moody Park Baseball Field	3	City
Sawmill Road Park	3	City
Shenandoah Soccer Park & Greenbelt	3	City
Stephen C. Beachy Central Park	3	City
Sugar Land City Park	3	City
Taylor Regional Park & Sports Complex	3	City

# Market Analysis - Summary

<b>DETAIL TABLE E-PUBLIC FLAT FIELDS (Min 3 fields)</b>		
<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Circle C Ranch Metropolitan Park on Slaughter Creek	27	City
Dyess Park	25	County
Katy Park	21	County
Eldridge Park	20	City
Veterans Park and Athletic Complex	18	City
Bear Creek Pioneers Park	18	County
Northeast Metropark Soccer Field	18	County
Dad's Club Sports Park	17	County
Crosby Park	16	County
HEB Soccer Complex	14	City
Community Park Missouri City	12	City
Independent Order of Odd Fellows Park (I.O.O.F. Park)	12	City
Matzke Park	12	County
Summit Soccer Complex	11	City
El Franco Lee Park	10	County
Round Rock Multipurpose Complex	10	City
Bryan Regional Athletic Complex	9	City
Burroughs Park	9	County
Carl Barton Jr Park	9	City
Cullen Park	8	City
Elizabeth Milburn Park	8	City
Southwest Williamson County Regional Park	8	County
Alden Bridge Sports Park	7	City
Bear Branch Sportsfields	7	City
Benbrook Ranch Park	7	City
City of Brenham - Hohlt Park	7	City
OSP Field 1	7	City
Roane Park	7	City
Zube Park DGC	7	County
Dow Park Athletic Complex	6	City
Killeen Family Recreation Center	6	City
Korompai Soccer Complex	6	City
Wells Point Park	6	City
City of Brenham - Jackson Street Park	5	City
George Park	5	City
Gosling Sports Fields	5	City
Heritage Park	5	City

<b>Facility</b>	<b># of Fields</b>	<b>Ownership</b>
Buda Sportsplex	4	City
Burnett Bayland Park Soccer Field	4	City
East Metro Park	4	County
Kate Barr Ross Memorial Park	4	City
Magnolia Youth Park	4	County
Mont Belvieu City Park	4	City
North Shore Park	4	County
Pfennig Park	4	City
Simmang Park And Soccer Fields	4	City
South Post Oak Park	4	County
Southeast Metropolitan Park	4	County
Stuart J. Beebe Athletic Complex	4	City
A.V. 'Bull' Sallas Park	3	County
Brushy Creek Sports Park	3	City
Franklin Ranch Community Park	3	City
Houston Memorial Park	3	City
McMaster Athletic Complex	3	City
Moody Park Baseball Field	3	City
Sawmill Road Park	3	City
Shenandoah Soccer Park & Greenbelt	3	City
Stephen C. Beachy Central Park	3	City
Sugar Land City Park	3	City
Taylor Regional Park & Sports Complex	3	City

# Market Analysis - Summary

<b>DETAIL TABLE F-BMX Tracks</b>		
<b>Facility</b>	<b>BMX</b>	<b>Ownership</b>
3 Palms Action Sports Park	1	Private
9th Street BMX Park	1	Private
Bear Branch Skate Park	1	City
Brushy Creek Skate Park	1	City
Central Texas BMX	1	Private
Community Park Corsicana, TX	1	City
Cranebrook Park	1	City
Empire BMX	1	Private
Gene Green Beltway 8 Park	1	County
Heath Eiland and Morgan Moss BMX Skate Park	1	City
Hilltop Ranch BMX	1	Private
Jaws Skate Park	1	City
Kasmiersky Park Skatepark	1	City
Katy BMX	1	Private
Lone Star Bmx Raceway	1	Private
North East Metropolitan Skate/Bike Park	1	County
Pearland BMX	1	Private
Rebel Run Sports Camp	1&2	Private
Shaylah Dame Skate Park	1	City
Sul Ross Skatepark	1	City
Walnut Creek Metropolitan Park	1	City

<b>DETAIL TABLE G-Climbing Walls</b>		
<b>Facility</b>	<b>Climbing Walls</b>	<b>Ownership</b>
Austin Bouldering Project	1	Private
Boulders Sport Climbing Center	1	Private
Challenge Course- Georgetown, Texas	1	City
CLIMB Woodlands Indoor Rock Climbing & Team Building	1	Private
Crux Climbing Center	1	Private
Hill Country Indoor Sports and Fitness	1	Private
Horseshoe Junction Family Fun Park	1	Private
inSPIRE Rock Indoor Climbing & Team Building Center	1	Private
Life Time Athletic CityCentre	1	Private
Life Time Fitness Austin North	1	Private
Life Time Fitness Austin South	1	Private
Life Time Fitness Champions	1	Private
Life Time Fitness Houston#1	1	Private
Life Time Fitness Houston#2	1	Private
Life Time Fitness Sugarland	1	Private
Main Event Entertainment	1	Private
McKinney Roughs Nature Park	1	Private
Momentum Indoor Climbing Katy	1	Private
Momentum Indoor Climbing Silver Street	1	Private
North Austin Rock Gym	1	Private
Outdoor Escape Custom Build Climbing Walls	1	Private
Palestine YMCA	1	Private
Space City Rock Climbing	1	Private
Sports 59	1	Private
Stone Moves Indoor Rock Climbing	1	Private
Summit Recreation Center	1	City
Texas Rock Gym	1	Private
The Jungle Movement Academy	1	Private
Zero Gravity	1	Private

# Market Analysis - Summary

<b>DETAIL TABLE H-Waterparks</b>		
<b>Facility</b>	<b>Water Park</b>	<b>Ownership</b>
Adventure Island Waterpark	1	Private
Chadillac's Backyard Waterpark	1	Private
Horseshoe Junction Family Fun Park	1	Private
Lions Junction Family Water Park	1	Private
Pirates Bay Waterpark	1	City
Rock'N River Waterpark	1	City
Schlitterbahn Waterpark New Braunfels	1	Private
Splashway Water Park	1	Private
Summer Fun Water Park	1	Private
The Waterpark at Riverstone	1	Private
Typhoon Texas Austin	1	Private
Typhoon Texas Waterpark	1	Private
Wet 'n' Wild Splash Town	1	Private

<b>DETAIL TABLE I-AVIARIES</b>		
<b>Facility</b>	<b>Aviaries</b>	<b>Ownership</b>
A Parrots Cove	1	Private
About Birds	1	Private
Adventures In Birds	1	Private
Armand Bayou Nature Center	1	Private
Audubon Docent Guild	1	Private
Austin Nature & Science Center	1	City
Cameron Park Zoo	1	City
Luigi's Aviary & More	1	Private
Round Top Aviaries	1	Private
S & S Aviaries	1	Private
Solely Solomon Aviaries	1	Private
Southeast Animal Clinic	1	Private
TGR Exotics Wildlife Park	1	Private



# 04 Programming Interviews

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# Programming Interviews

The programming process is a multi-faceted exercise involving many different inputs that create tension, opportunity, constraints, and importantly, interest and reality based consensus. What is needed, what will work, what will the site accommodate, what is realistic...essentially finding the right mix of program at the right scale that serves a multitude of legitimate interests in the same space. This consensus is impossible to reach without robust, inclusive, and broad stakeholder engagement.

The project team accomplished this vital task through dozens of meetings and exercises with City staff, and political leadership, with affiliates and partners of the City, with sports organizations, other stakeholders, and public feedback via meetings and online survey.

While specific interests varied, a few consistent themes and common goals were found across every audience – protect and use the natural space of the park as an amenity, view the park as Bryan’s “Central Park,” create destination opportunities with a mix of sports play/tourism, eco-play/tourism, and venue amenities, connect the park to the community via sidewalks and bike paths, and optimize rather than maximize the park. The lake is seen as a positive attribute for the park and wishes were overwhelmingly expressed for further use of the lake for paddling sports and event venue. With few exceptions, the need and support for a high quality indoor facility able to host competitive events and large groups was heard over and over across most audiences.

Meetings with City officials involved one-on-one meetings with multiple departments and leaders including:

- City Council
- Bryan Parks Board
- Bryan Senior Advisory Committee
- Administration
- IT
- Facilities
- Parks & Recreation
- Public Safety
- Public Works
- Planning and Economic Development

The overwhelming consensus from these meetings and programming exercises is that the new park must be broadly accessible to the entire community by maintaining its natural attributes as valuable amenities for walking, free play, and quiet space. Equally important is that the park’s built amenities must serve as economic development instruments which attract outside visitors and overnight stays in Bryan. Key to this goal is the necessity of improving neighborhood and larger community connectivity to the park via improved roadways, trails, sidewalks, and bike paths.

Emphasizing the park’s open spaces with intelligent amenity programming such as rowing activities, a waterpark, zip line and climbing walls, etc can help accommodate demand in the region and elsewhere while enhancing Bryan’s reputation as a destination. Furthermore, an indoor competitive facility capable of hosting large tournaments and events (e.g. basketball, volleyball, cheer, etc) is one of the most important types of facilities lacking in the region. Such a facility would yield immediate positive impact for both the community and the economic development mission of the City without compromising the integrity and solitude of the quiet natural spaces in the park. Finally, support for improving existing baseball diamonds in the vicinity of the park as well as adding a small number of high quality fields along with multi-purpose flat fields were roundly heralded across all City stakeholders.

Meetings with regional cohorts and affiliates also echoed many of the same sentiments express by Bryan officials and staff. For example, College Station Parks and Recreation leadership expressed strong interest in partnering with Bryan to attract more visitors to the region. The need for a high quality, large indoor facility as well as an aquatic paddle sports facility were two top items of interest. Experience BCS expressed that the lack of a centralized convention space and indoor competitive recreation space remain as missed economic development opportunities regionally.

Feedback from the Rio Brazos Audubon Society and Brazos Valley Arts Council emphasized the importance of maintaining the natural habitat at the new park while also acknowledging and expressing support for aquatic paddling sports, outdoor biking and running, disc golf, and birding or eco-sports programming. Likewise, interest in ensuring the park can serve as an event venue for outdoor performances and festivals was extremely high.

Texas A&M is a crucial partner to the City and meetings with the university's Recreation, Parks and Tourism Sciences department further buttressed the variety of feedback received from other stakeholders – protect and optimize the natural resources of the park as amenities, create indoor recreation and competitive event hosting capacity, promote performing arts by creating venue opportunities in the park, and maximize the use of the lake as an amenity.

Meetings with sports leagues provided feedback mostly on the quality and volume of program space desired for the various sports represented. The leagues recognized that not all of the quantity they seek can necessarily be captured in the new park. However, each expressed support for high quality facilities, a mix of sports, and an interest in participating in the long-term strategic goals through incremental accommodation of their needs.

Other meetings were conducted with business leaders and organizations with similar results. The Bryan Business Council highlighted their belief that the natural resources of the park are an asset which can be turned into attractive amenities. Redevelopment of the Midtown area is a strong area of interest and believe the park to be the economic engine to attract investment dollars to a revitalized Midtown.

Finally, public engagement exercises through surveys and meetings rounded out the feedback for the desired program in the park. 1,363 individuals participated in the bilingual online survey. Trails, nature play, paddling activities, and event/meeting space were top amenities. Strong support for sports fields, adventure sports (i.e. climbing walls, ropes courses, etc), and a waterpark were almost as important to these respondents. Regardless of age and specific interests, a vast majority of respondents placed emphasis on quality, safety, connectivity, and maintenance of whatever amenities are built.

A total of 198 residents attended two town hall meetings and several dozen more visited a booth at a First Friday event. Preferences for various park programs were recorded with a strong balance being reached between natural resource amenities, sports facilities, and adventure/water park amenities. Many interests were narrow but when merged as a whole represent a tapestry of desires the park can ably cohabitate without harm.

# Programming Interviews

## Meeting #1: Kick-Off Meeting

During the Kick-Off Meeting Burditt discussed the project schedule and programming process with City of Bryan Staff present. Additionally, Burditt and Staff identified stakeholder groups and other programming meetings to be held, to assist in the programming efforts. The programming meetings identified included the City of Bryan Staff, the Bryan City Council, and the Bryan Parks Board. Stakeholder groups identified included City of College Station Parks and Recreation Department, Experience BCS, Rio Brazos Audubon Society, Texas A&M University Recreation, Parks and Tourism Sciences, Texas A&M University Outdoor Recreation, Brazos Valley Arts Council, Keith Joseph, James Murr, Bryan Independent School District (Athletic Directors), Organized Sports Organizations, Girl Scouts of Central Texas, Bryan Business Council, the Bryan Senior Advisory Committee, Brazos Valley Bombers, and Wade Beckman.



*Bryan Staff Kickoff Meeting with Design Team*

## Meeting #2: Bryan Parks Board

During the first programming meeting Burditt met with the Bryan Parks Board and began the problem seeking process. The goals, facts, needs, and concepts for the current and future Regional Park were discovered through a series of questions that Burditt asked the staff.

Major goals for the Regional Park identified by the board were to see a first class space to host athletic events, the development of a phased plan which could generate revenue to support future phasing and to plan for the development of all-weather fields for multi-purpose outdoor activities. The board strongly desired to see the engagement of all stakeholder groups during the public outreach process and desired to see a plan which connected residents to the park in a way in which they could feel a certain level of pride and ownership. Statements like, "this should be THE parks for Bryan" implied the park should be designed in a way which creates a destination for the community and the region.

The board also provided facts and needs to consider during the programming session. These included the planning of ample parking, consider the need for a cross country event (5K) location within the planning of trails in the park, and the importance of balancing site development by blending natural versus commercial development on the property. The board also expressed the desire to consider the corridor connection to downtown and identify opportunities to enhance connectivity and mobility within the area. Needs ranged from enhancing the lake, planning for traffic improvements, stormwater management, tree preservation, an indoor aquatic facility, ample site lighting, trash cans, coordination with the girl scouts' building project, covered areas for gathering spaces and offering a broad range of activities so there is something for everyone.

The board then shared their concepts and vision to consider during the planning process which included the following:

- Multiple concession stands
- Developing a theme for different park features
- Consider a train around the site, carousel, performing arts stage, on-site office
- Create more opportunities for fishing
- Ensure paths are connected to off site trails/sidewalks to connect to the community
- Quiet zones for nature play/observation
- Dog friendly amenities
- Community garden/demonstration garden
- Consider using the trails to show the history/heritage of Bryan or education of what was here (dinosaurs, etc)
- Consider private development opportunities with hotel, restaurants (as a way to generate revenue)
- Inter-urban trolley to move people from downtown to campus, with a stop at the park
- Connecting Bomber's field to the park
- Stage/amphitheatre for concert
- Roller rink
- Consider pumping water to highest point so all waterways/creeks have flowing water at all times
- Museum
- Nursery for tree replacement



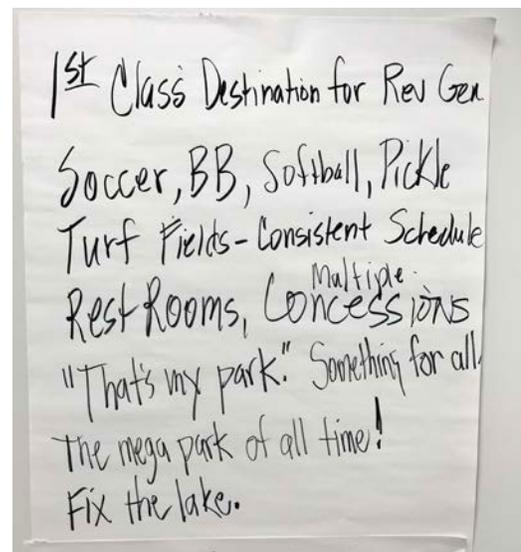
Bryan Parks Board Programming Meeting

### Meeting #3: City Staff

During the second series of programming meetings, Burditt met with City Staff over the course of two days. The departments represented were Administration, IT and Facilities, Parks, Planning and Economic Development, Public Safety, and Public Works. The following are lists of Goals, Facts, Concepts and Needs identified during the staff programming sessions.

#### Goals

- Catalyze and support redevelopment within the area
- Complement existing recreation facilities within the area
- Strengthen connection to Travis Park
- Children's museum
- Improve site access and circulation along Villa Maria

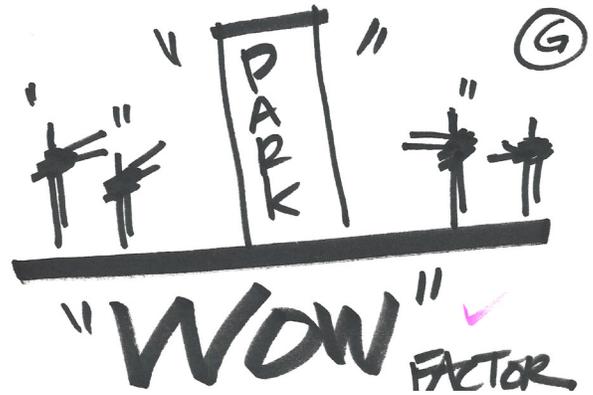


# Programming Interviews

- Create wetlands to treat the water on site and reduce silt in the lake
- Ensure the long term management of the lake with a pond management plan
- Indoor Facility should meet the local needs and serve as a State/Regional Draw
- Meet local market needs/demands
- In 200 years, the 5th generation of community members would consider this a long term, critical asset
- Keeping people safe and being able to access and respond to accidents
- Prevent vehicle theft
- Plan park with activity clusters (to distribute access)
- Ensure the trails, bike paths are all connected and coordinated in a way which connects Downtown to Texas A&M University
- Make the lake a more formal part of the flood management system in Bryan by expanding capacity, addressing outflow with valves, and downstream impacts

## Facts

- Site has natural/physical assets which no other property has
- Vision of the park from South College is limiting factor currently
- Consider approximately 3 "central landing" locations for fiber infrastructure where everything stems from (internal park network)
- Graffiti and vandalism is a concern at the location currently
- The park should include amenities that are not available elsewhere in the community
- Open spaces can be utilized for kite flying, hot air balloon activities and open-field archery
- There is currently a summer camp with over 300 participants, but is not being conducted at the future Regional Park site at this time.
- Recreation Center should be a minimum of 60,000 SF
- This is a primary connecting point between Texas A&M University and Downtown Bryan



(N) SOLS (PERMEABLE)



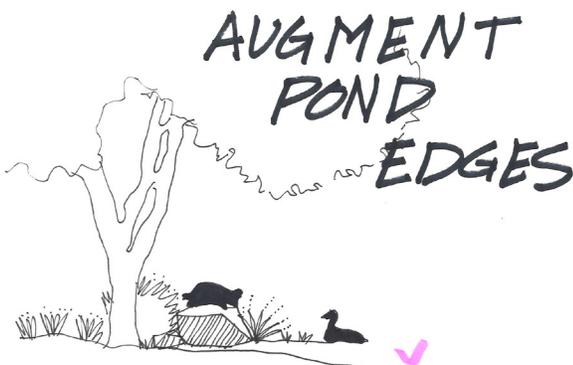
CONSIDER  
REGIONAL  
TRAIL  
CONNECTIONS



- Vehicle theft is an issue where people gather
- Stormwater on S. College flows on the road to intersection at Villa Maria
- Have one signalized entrance off of Villa Maria (TXDOT)

### Concepts

- Zoo
- Consider adventure activities
- Consider acquiring additional property for the supporting parking areas in order to retain green space
- Supports the idea of a restaurant/event venue lakeside
- Consider the naming as something significant to history, heritage
- Consider holiday lighting opportunities at park and along South College, connecting the park and corridor to Downtown
- Consider a trolley connection for Downtown to University, with park serving as central hub
- Evaluate the idea of an event venue for performances
- Consider dedicated connection for cyber-security purposes
- Consider planning for the placement of Parks and Recreation Department offices on-site
- Consider BMX biking trails/facilities
- Would like to see pavilions/covered outdoor spaces around the park property
- Consider overland detention techniques (floculants)
- Consider grant/funding from the water development board or FEMA for some of the development of lake amenities, given uses, if appropriate
- Consider sand volleyball competitions venue
- Consider zip line as an opportunity to attract corporate retreats for team building
- Consider wheel chair/special needs play course
- Consider wildlife enhancement zones
- Consider off-site parking and access to the park via a trolley service/shuttle
- Consider ingress and egress options along Williamson Drive
- Consider the use of public art for rain water capture
- Consider using the lake for on-site irrigation
- Consider disc golf on site
- Open-field archery as a program offering
- Consider a covered outdoor area for fitness boot camps
- Consider a water park (potentially consider a train theme) as a destination for the park
- Consider the development of a boardwalk
- Consider adventure playscapes and all-inclusive play facilities
- Consider concessions areas and potentially incorporating food trucks
- Consider a community center which would incorporate programming for children to senior citizens
- Consider nesting boxes to support habitat
- Consider bird blinds along trails for bird watching
- Maintenance capacity must flex accordingly. Should consider program storage and recreation storage in addition to maintenance equipment storage
- Consider commercial development along the Villa Maria corridor
- Identify opportunities for crowd control
- Clarify zones at the park, for easily identifiable areas when a citizen calls for assistance
- Consider pathways to be wide enough (6' with base) for cars to drive down (emergency services access)
- Incorporate video surveillance opportunities within the design



# Programming Interviews

- Consider a top golf (or comparable facility) at the venue
- Program considerations could include spike ball, futsal (indoor or outdoor)
- Consider sky-lift
- Consider concurrent drainage studies when performing hydrology analysis of the site
- Consider a pedestrian bridge or tunnel at the railroad

## Needs

- Extra conduit where ever you can, so that there is plenty of capacity for future needs
- LED lights (currently upgrading park lighting to LED)
- Staff to maintain facilities and consider operation and maintenance costs in the park planning
- Playgrounds
- Splash pads on site
- Plenty of trash cans
- Park benches
- Drinking fountains for people should incorporate dog bowls for dogs
- Open space in the design
- Adequate power supply and other connections (i.e. fresh/grey water, grease traps, etc) for food trucks
- BBQ pits, pavilions and walking distances to these facilities from parking areas
- Preserve trees where possible
- Augment the pond edges to make more interesting and to develop additional habitat
- Develop in open areas versus destroying existing tree canopy/shade
- Along South College Corridor from Villa Maria toward Downtown, City needs to have more land assembly
- Upgrading the little league fields at Travis and Nutri-Bolt in order to host events (baseball/softball)
- Need bike/pedestrian facilities all the way to Downtown
- Want to clean out the lake in order to make a larger lake asset
- Consider dredging timeline for the lake
- Plan for safety around the parking areas, as they will become attractive for theft

- Parking should be removed from the event site/festival location and away from roadway (people should be able to get away from their car to go to the event)
- Call boxes along trails (consider incorporating cameras)
- Need defibrillators at park amenities
- Need to have boat launch area for boat access for emergency response
- Public Safety and Security Audit as part of master plan process
- Address TCEQ/EPA concerns up front and incorporate into overall cost for site development
- To educate the public on the lake being safe, water quality and rehabilitation/remediation of the water
- South College needs more storm water drainage
- A prominent entrance off of South College is needed for additional circulation to/from the site
- Need a central collection point for solid waste management/trash pickup. Central location may be off-site and may ideally be located along South College
- Increase Right of Way in and around the park property
- Need to capture affluent water from the Northwest
- Need more storm water capacity from the lake

## Meeting #4: City Council

Burditt and City Staff facilitated a workshop with the Bryan City Council during a regular council workshop session on June 12, 2018. Burditt provided an update to the Council on the programming interviews and public engagement process as well as facilitated a programming discussion with the Council. In summary, the Council desired to see a balance of developed and undeveloped land at the park. They expressed a desire to preserve as much of the existing tree canopy and natural topography, in order to maintain the existing character of the site, which they considered an asset to the community. In terms of park programming, there was consensus among the council members that park development should serve as an opportunity to increase athletic facility capacity for the community, including exploring the idea of an indoor recreation facility and outdoor multi-purpose fields.

### Stakeholder Interviews

#### City of College Station Parks and Recreation Department

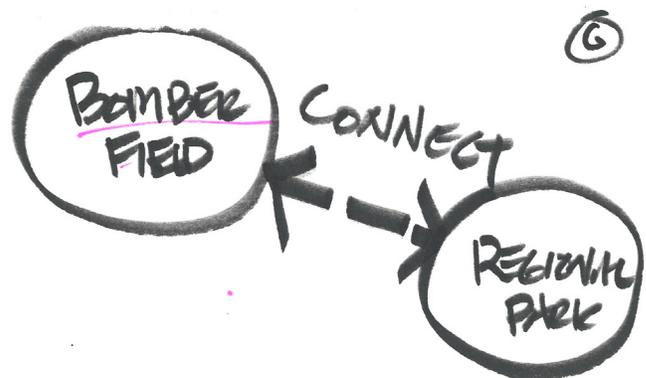
From the onset of the Regional Park project, a desire to not duplicate facilities in the Bryan/College Station area was expressed. In interviewing leadership staff of the City of College Station Parks and Recreation Department (CSPARD), a discussion of their long range facility plans was held as well as a discussion of area issues, needs, trends and potential projects related to the tourism industry in the Bryan and College Station community.

In terms of local indoor recreation facility needs, staff expressed a lack of usable indoor recreation space in the community. The indoor gym space located at the Lincoln Center in College Station and Neal Recreation Center in Bryan are the only facilities devoted to municipal indoor recreation use. Both are limited in space and designed to serve their respective communities and were not designed with the goal of attracting tournaments. If an indoor facility were developed, programs could include Pickleball, Indoor soccer (Futsal), Volleyball, Basketball, E-Gaming, Drone competitions, Tag competitions and a variety of other indoor tournaments requiring open floor space.

In terms of outdoor recreation opportunities, staff expressed open water aquatic paddle sports are lacking in the area. These could include paddle boards, canoes, kayaks and rowing. A miracle league field is currently not available in the community and would be a desirable amenity. Consider a venue for festivals/concerts.

In the past, CSPARD senior programming has been focused on sedentary programs which has created a need for more active adult programs (ages 50-65, 65+). Existing senior programs are maxed out due to facility limitations leaving the opportunity for a senior center or senior program space at an indoor facility.

In regards to national recreation trends, staff stated three of the fastest growing recreation activities are BMX cycling, Soccer (indoor/futsal and outdoor), and E-gaming (300-500 seats). Other areas of interest include indoor and outdoor "adventure" activities including Ultimate Frisbee, Pickleball, Rugby (seven player), and Lacrosse.



# Programming Interviews

Long range plans for CSPARD include developing a new community park on East Rock Prairie Road which will include two, four-field youth baseball/softball complexes. Veterans Park and Athletic Complex is approaching build out and at completion, it will have five grass adult softball fields, nine grass soccer fields, and six artificial turf soccer/multi-use fields.

Key takeaways from the interview included a very strong desire to work in a cooperation with the City of Bryan to attract large state and national tournaments and events to the community. The emphasis is to try to avoid duplication of services and facilities where possible and staff believes there is potential to create some synergy through these cooperative efforts to capture a larger tourism market. A “destination” attraction at the Bryan Regional Park site would be beneficial for the entire community as well as out of town visitors.

## Experience BCS

Experience BCS serves as Convention and Visitor’s Bureau for the Cities of Bryan and College Station. Specifically, their staff works with Bryan staff to plan for and attract regional sporting events to promote sports tourism to the area. When interviewed about the Regional Park Project, staff expressed a variety of needs and concepts as it relates to hosting large scale conventions and sports tourism events.

Experience BCS staff explained that no centralized area exists for convention meeting space for groups in the 300-500 range. They went on to explain there are also no indoor recreation facilities in the community which could support large tournaments such as volleyball, cheer, pickleball, basketball and other activities. Staff believes that if the City were to invest in the development of an indoor recreation center, with 6-8 full size basketball courts, a facility like this could increase local sports tourism opportunities.

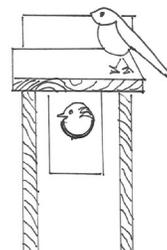
Staff also expressed some outdoor recreation opportunities for the park including lacrosse facilities, water recreation activities on the lake, and bio/eco-tourism initiatives which could appeal to a leisure traveller, winter Texans and bird watching enthusiasts. Overall Experience BCS staff perceived of the new regional park and its amenities as supporting existing and future sports tourism events by providing a “destination” in the community to visit during tournaments and other activities.

## Rio Brazos Audubon Society

The meeting consisted of interviewing representatives of the Rio Brazos Audubon society regarding issues and potential projects related to the Bryan Regional Park as well as environmental and habitat preservation requirements for birding on the site.

Through the course of the meeting, attendees expressed a desire to preserve as much of the open space and natural habitat at the site. The existing site provides habitat for many species of birds throughout the year, and loss of habitat in this area, as well as other areas, has adversely impacted bird populations. Related to this, attendees expressed a need for invasive plant species to be controlled in order to protect existing bird habitat. Generally, the group felt large scale development of athletic facilities will harm the natural park environment. From their perspective, maintaining as much of the existing lake as possible at the north end of the property and create a natural buffer around the lake, would protect the bird habitat on site.

The group explained that birding is a large industry in Texas and locally in the Brazos Valley. Texas is in a major fly-way between Central America and Canada, leaving Texas as one of the best birding sites in the nation.



**NESTING  
BOXES  
TO SUPPORT  
HABITAT**

### Texas A&M University Recreation, Parks and Tourism Sciences/Texas A&M University Outdoor Recreation

Texas A&M University is considered an integral community partner for the City of Bryan. Not only does the University provide resources for community development through its academic programs, but the student body and staff populations are economic drivers for retail, housing, and recreation opportunities within the community. For the purpose of the Bryan Regional Park project, staff from the Recreation, Parks and Tourism Sciences and Outdoor Recreation were interviewed.

In terms of goals for the project, meeting participants desire a strong integration of natural value on the site, through tree preservation, nature observation and natural preservation. Creating zones of activity for active and passive recreation would provide for the blending of new activities and old activities at the site. Additionally providing space for public art and community performing arts would be desirable. Participants expressed a desire to develop a park where individuals could spend the entire day.

Some of the facts determined for the project were that Pickleball and E-gaming are in high demand and local residents are seeking opportunities to climb, with the Recreation Center at the University providing the only indoor climbing facility in the area.

During the meeting, a number of concepts were articulated. Several participants consider the water as a great amenity for paddling opportunities. In regards to natural amenities, consider wildflower, native plants center, nature center or interpretive elements for nature preservation, heritage/history of the community. Overall support was expressed for integrating commercial activities (food trucks, restaurants, along the water/park's edge). Finally a performing arts center and farmer's market were identified as additional program concepts which could be considered at the park.

### Brazos Valley Arts Council

During this meeting, Chris Dyer was interviewed regarding issues, trends and community desires for the Bryan Regional Park Project as well as opportunities for performing and visual arts to be incorporated into the park program and design.

Some of the concepts expressed during the interview included considering a venue for live music or theatre as well as designing nodes and spaces for people to create art. Dyer communicated a desire of the Brazos Valley Arts Council to continue its partnership with the City to provide access to public art and would support providing for art instillation at the Regional Park.

Needs identified which could be considered through the park programming would be to provide for the development of a park which could allow for people to hang out all day. As meeting spaces for the community are also in demand, there is also a need within the community for meeting space/ rental space for groups of 250 or more.

### Keith Joseph

This interview consisted of a discussion related to the development of a miracle league type facility constructed in conjunction with the park. Mr. Joseph would like the future Regional Park to have opportunities for recreation for under-represented groups such as other abled individuals in the community. As a resident, he would like the park to be a safe environment for people to go and spend time and facilitate activities for cultural diversity.

Joseph offered a few additional concepts for consideration including the enhancement of the lake as an amenity and cleaning it up in order to make it more inviting. He also recommended the development of lit, natural trails for multi-use as well as shaded areas for sitting and picnicking.

# Programming Interviews

## James Murr

This interview discussion centered around development interests from the Cortier group related to the Bryan Regional Park Project. The group expressed an interest in considering a mixed use development along the Villa Maria corridor. If considered, the developers would desire a master plan developer role in the development of the project. Their staff have experience in developing destination recreation developments where the public sector provided land and vertical construction investment, in return for certain performance on property, sales and hotel occupancy tax revenue and job creation. They believe that in order for them to have interest, public dollars would need to be involved.

## Bryan Independent School District Athletics

During this meeting, the athletic directors, Lance Angel and Janice Williamson were interviewed regarding athletic facility needs in the Bryan/College Station area. The perspective offered, conveyed needs both for community recreation and for regional sports tourism. As it related to sports tourism, the district currently hosts a 100 team softball tournament in February which uses fields at Central Park, Veterans, Bee Creek and BRAC. Additional softball fields would be desired to continue to host this event and consolidate to fewer locations.

In terms of community recreation, the local pickleball organization currently uses indoor courts at various school sites, four days a week. The local demand for indoor recreation facilities exceeds available space offered by the district. In terms of long range plans for the district, facilities' plans include the construction of an additional gym at Rudder, however, this will not address all of the indoor recreation needs of the community.

Concepts identified which warrant further evaluation were the consideration of expanding athletic facilities at the Bryan Regional Athletic Complex. This facility was identified because of its existing facilities and available adjacent land. A desire was expressed to consider spike ball facilities as the district has observed this as a trending sport activity. Finally, destination recreation opportunities discussed were water park and climbing facility.

BRYAN - Regional Park

The needs identified from BISD primarily centered around support facilities for Bryan ISD athletics. These included the need for turf fields for all weather play (baseball/softball), covered pavilions for basketball, additional tennis courts, indoor gym space (basketball, volleyball, pickleball), a chipping/putting green for the golf teams to practice, a cross country course, and indoor natatorium.

## Organized Sports Organizations

The meeting was discussion regarding issues, trends and community desires for the Bryan Regional Park Project. A list of Sports Organizations was provided by City Staff and all organizations were invited to attend the meeting. Representatives from Brazos Valley Youth Soccer Association, United Little League, Brazos Valley Disc Golf, BCS Lacrosse, Brazos Valley Juniors (Volleyball), Aggieland Elite (Volleyball), Men's Softball, Brazos Valley Pickleball Association and Aggieland Homeschool Association were in attendance.

The following is a list of expressed program needs by sport or organization.

### BCS Lacrosse

- Would like a minimum of four (4) artificial turf fields, with a tournament potential of four to six (4-6) weekends per year
- Currently their program is for area youth only

### Men's Softball/United Little League

- Would like twelve turf fields, with tournament potential every weekend
- Locally there are 125 tournament teams living in BCS area who travel to play
- A facility like this could combine Little Leagues at one location

### Brazos Valley Youth Soccer Association

- In need of lighted practice fields
- Synthetic fields would be supported
- Supports the idea of renovating BRAC for athletic field use

### Brazos Valley Pickleball Association

- Need eight (8) courts for league play and twelve to sixteen (12-16) courts for tournament play
- League currently has seventy (70) participants with league play occurring four to five (4-5) days per week

### Aggieland Homeschool Athletics (AHA)

Sports currently offered and the number of participants this year: Basketball – 100 athletes, 11 teams, boys & girls, ages 8-18; Volleyball – 40 athletes, 4 teams, girls, ages 10-18; Track & Field – 40 athletes, boys & girls, ages 10-18; Cross Country – 20 athletes, boys & girls, ages 10-18

- **Facility Needs:** Gym space for basketball and volleyball teams to practice, play and host tournaments

### Brazos Valley Juniors

- **Age Groups Served:** Currently offer training or teams for ages 8-18.
- **Current League Enrollment:** 160 people on teams and an additional 60 registered in a developmental league
- **Desired Number of Facilities:** An 8 court indoor facility would allow for practice two days a week and 8 courts would also allow for hosting tournaments

### Girl Scouts of Central Texas

The meeting consisted of discussion regarding the Girl Scouts plans for their building located adjacent to the regional park site and programs that they conduct for the scouts.

The Girl Scout organization has a long-term commitment to stay at current building located adjacent to the regional park. Their building has been on site since the 1940s. GSCT owns approximately 1 acre site with 3,000 SF of rentable space, with the scouts using the space several times a week, August through May of each year. The organization has developed plans for extensive remodeling and replacement of structure at rear of the building. A budget of roughly \$300,000 has been established, with architectural plans having been developed. The existing build is used by the scouts several times

a week. It also is rented throughout the year for special events such as meetings, family activities, weddings and funeral services.

Organization representatives would like to coordinate trail/sidewalk development at the park, with their site. They expressed a willingness to consider access easements for trail development along the lake frontage (at their property). They would also be in favor of additional lighting along trails and at the park to increase visibility of their site and enhance security.

Representatives also expressed strong support for a trail system connecting the park and their property. Also, a bridge over the upper portion of the lake would be used for scout ceremonies as well as walking. They would also like to use the lake for canoeing and kayaking. The trails could include areas for wildlife viewing and plant identification as part of their scouting activities. "Nature play" areas and interpretive programs would be good additions for the park. Also, some type of outdoor classroom would be nice to have available. Scouts would utilize this on site amenity for badges for the scout program. Other activities and facilities mentioned as possible amenities for the new park included adventure/ropes courses, indoor aquatic facility, special event venue, natural history museum and obstacle courses. They also support the idea of an event venue/amphitheatre.

The group expressed they have 18 off street spaces and would like to reserve those for scout use, when programs are occurring. With future park development, they would like to see additional parking on site, to accommodate site programs. Are not opposed to park users using their parking, but don't want to have to compete for parking for events.

Overall, the Girl Scouts have a very strong commitment to remain in this location. The building has special meaning to them from a historical perspective as well as an operational role. They view the park development as a very positive change if done well. Some proposed features adjacent to their property can have a direct benefit to their organization.

# Programming Interviews

## Bryan Business Council

The Bryan Business Council workshop was held at a regular meeting of the board. Discussion centered around how the development of the park could provide economic development opportunities for the City of Bryan, particularly in the Midtown Corridor.

Board members consider the natural environment an asset and believed the site characteristics should be incorporated into overall park design. Board members believe the park project could serve as an economic engine for the community, bringing new investment, business and redevelopment to the area. Development of the park should be a destination for Central Texas and that the park project holds the same opportunities for Bryan as Downtown Bryan held.

As a result, a desire for the park development should have a striking appearance was expressed.

Concepts identified during the interview were exploring indoor opportunities such as boxing, volleyball, basketball, pickleball and outdoor recreation opportunities such a water park. Another ideas was to explore the feasibility of equestrian trails.

From the BBC's perspective, they believe the opportunity for PPP should be considered off-site, not on-site. These could including hotel, restaurant, other retail opportunities. By providing for this type of investment off-site, more area within the park could be utilized for park development.

## Bryan Senior Advisory Committee

The senior advisory committee is organized under the Bryan City Council to offer ideas as they relate to senior programs in Bryan. When discussing the Bryan Regional Park, the committee supports an integrated senior center as part of an intergenerational indoor facility for the project. Currently, there is a lack of a dedicated senior program space in the City of Bryan and the group believes that this space could be a part of a potential indoor facility at the park site. Consideration in facility and site design should be made for those with limited mobility.

Other outdoor recreation ideas offered at the meeting included walking and cycling trails, a garden area, climbing wall, benches with water fountains, interpretive signage, restrooms, amphitheatre, fishing piers, and waterside restaurant.

Indoor recreation ideas included areas for games, indoor tennis, exercise equipment, indoor walking track, pool, areas for quiet meditation, workshop area for presentations and training, a large room for dances, music, special events, and a kitchen.

## Brazos Valley Bombers

The Brazos Valley Bombers organization is currently leasing a field at Travis Park. For this interview, Uri Geva represented the Bomber organization. Uri stated that in addition to regular league play, the team hosts tournaments at the facility as a way to generate revenue. Calvary FC, a minor league soccer team, also uses the stadium for league play throughout the year.

In considering future development at the Bryan Regional Park, Geva supports the idea of considering future public private partnerships to support ancillary commercial development around the park. He supports strengthening the connection along Bomber Drive between the Travis Park and Regional Park properties as a way to connect the two facilities.

In addition to improvements at the Regional Park site, he supports upgrades to the Travis Park little league fields and recommends converting those to turf fields for the purpose of providing additional fields for hosting tournaments at the Bomber Field.

## Wade Beckman

As a local business owner and organizer of the Crawfish Festival, Beckman was identified as someone who could provide feedback regarding future park development. According to Beckman, the festival was a huge success and demonstrated the potential for larger events in the future to be held at the site. Beckman supports the idea of considering the park is a venue for festivals, in addition to athletic and recreation events.

Other concepts mentioned include a waterfront restaurant, paddling opportunities on the water, dog park, unique playscapes, along with integrating jogging and walking paths throughout the site to connect spaces. Beckman also mentioned the idea of considering disc golf on some of the open space areas. He considered the development of an abundance of athletic facilities that would decrease the opportunities for other activities and supported the idea of upgrading Little League fields at the existing Travis Park.

In conclusion, Beckman expressed excitement for the project. He desires to see a park that attracts families and not just sports teams and spectators. Personally, he loves the site and wants to use it more for himself and his family as well as conduct future festivals and events at the site.



# 05 Public Engagement

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# Public Engagement

## ONLINE PUBLIC SURVEY

As part of the public engagement process, a public survey was conducted to gauge preferences from the public on future programs and amenities for the Bryan Regional Park. The Burditt Team in coordination with the City of Bryan assisted in the facilitation of the survey and garnered information and reactions from various individuals throughout the community and localized region.

### Format

A series of questions were structured to provide residents an opportunity to anonymously respond to the following:

- Residency location in proximity to park site
- Mode of transportation to park site
- Top 5 most important facilities/amenities
- Activities preferred
- Where individuals currently travel for recreation (outside of BCS area)
- Types of recreation amenities requiring travel (outside of BCS area)
- If available amenities were offered in Bryan, would residents choose to participate
- What was considered the most important for future park
- Age

### Response

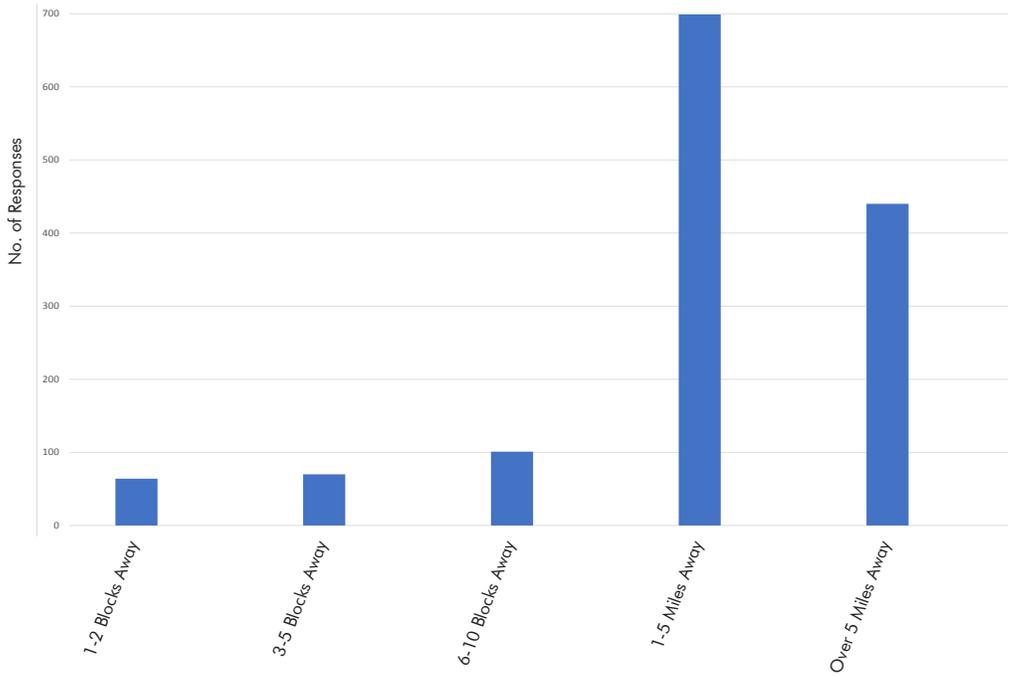
A total of 1,363 individuals participated in the English survey and 11 individuals participated in the Spanish survey.

When evaluating the future connectivity of the site to the Bryan area, residents were asked the distance away from the park and how they travel to the park. 699 responded as living 1-5 Miles away from the Regional Park, with 434 living Over 5 Miles Away. 1168 responded as traveling to the site by car, with 109 Walking or Jogging to access the site.

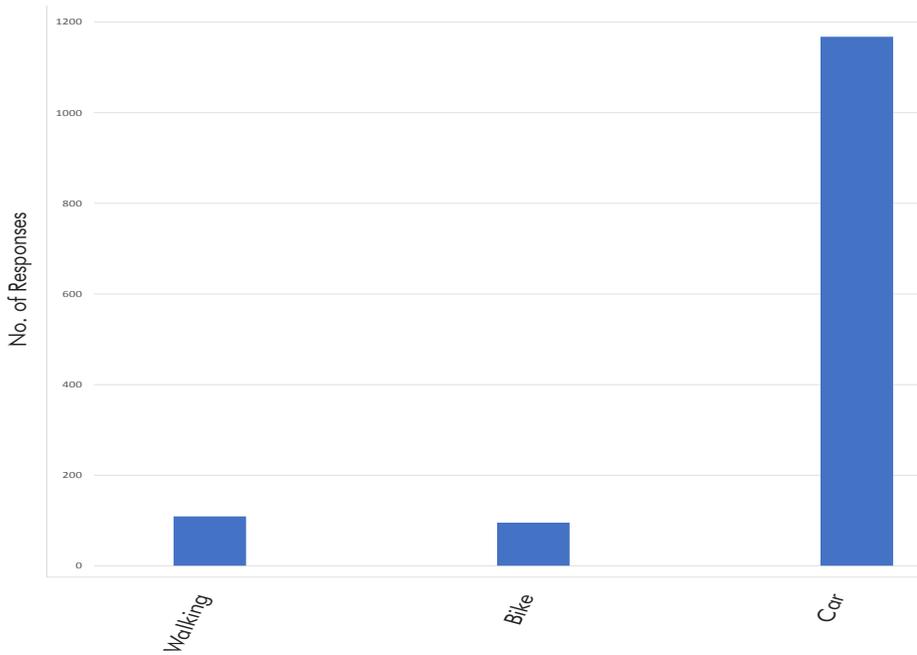
When asked what people's Top 5 Amenities for the park were, trails (971), nature play (730), paddling facilities (483), event venue (474), meeting space (366) were top items, followed by food truck area (349), outdoor sports fields (354), adventure tower (340), water park (336), splash pad (329), dog park (321), play structure (292), indoor sport facilities (282) and public art (252). When asked what survey participants would like to do in the future park, the top choice was walk on a trail network or loop (903), nature play (653) and go to a concert at an amphitheater (572).

When considering the most important thing for the future of the park, quality of facilities and programs was the top priority, with 734 votes, followed by safety/security (709), maintenance (568), connectivity (466), and number of facilities and programs (194).

### Where do you live, relative to the Bryan Regional Park site?

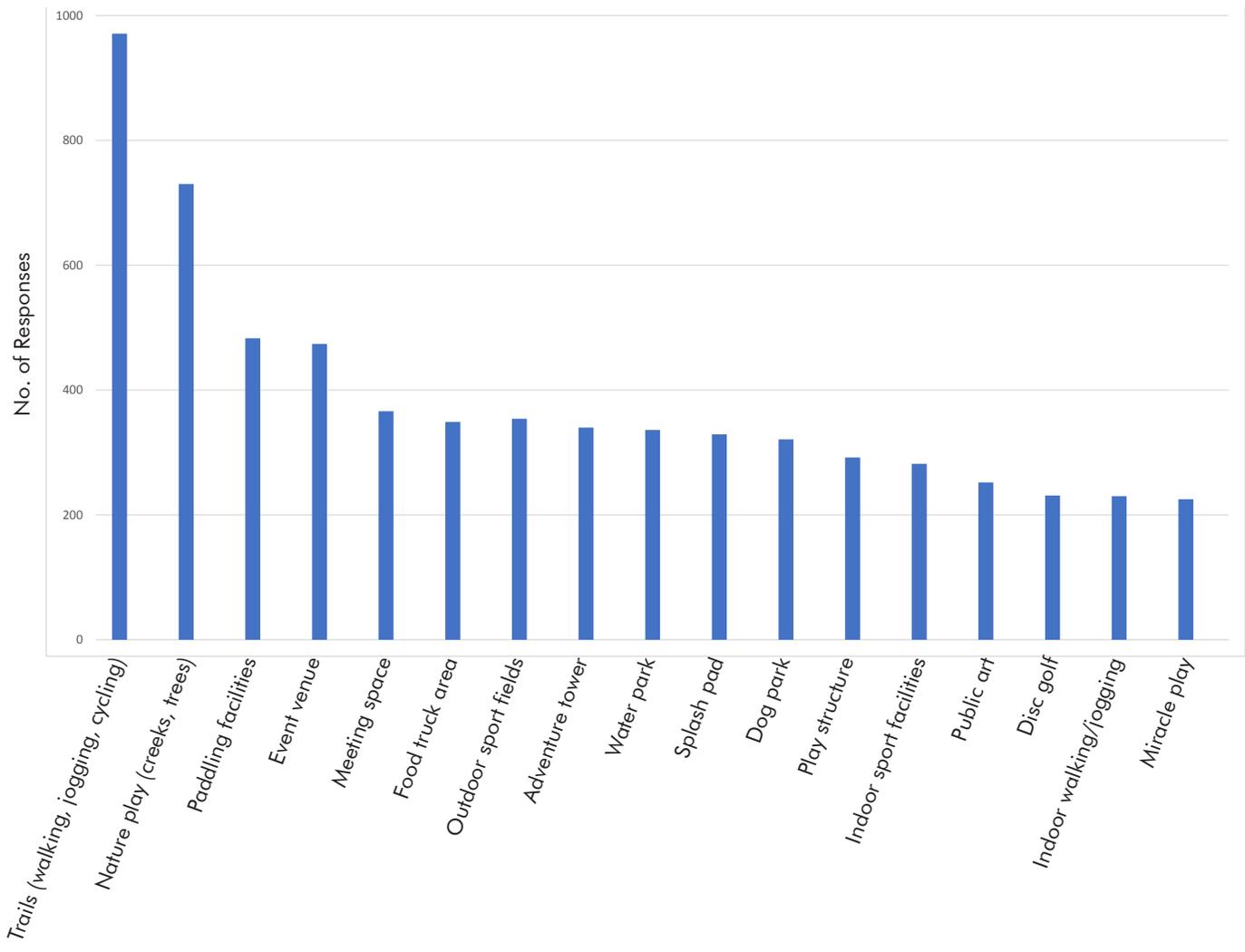


### How do you anticipate traveling to the Bryan Regional Park site?



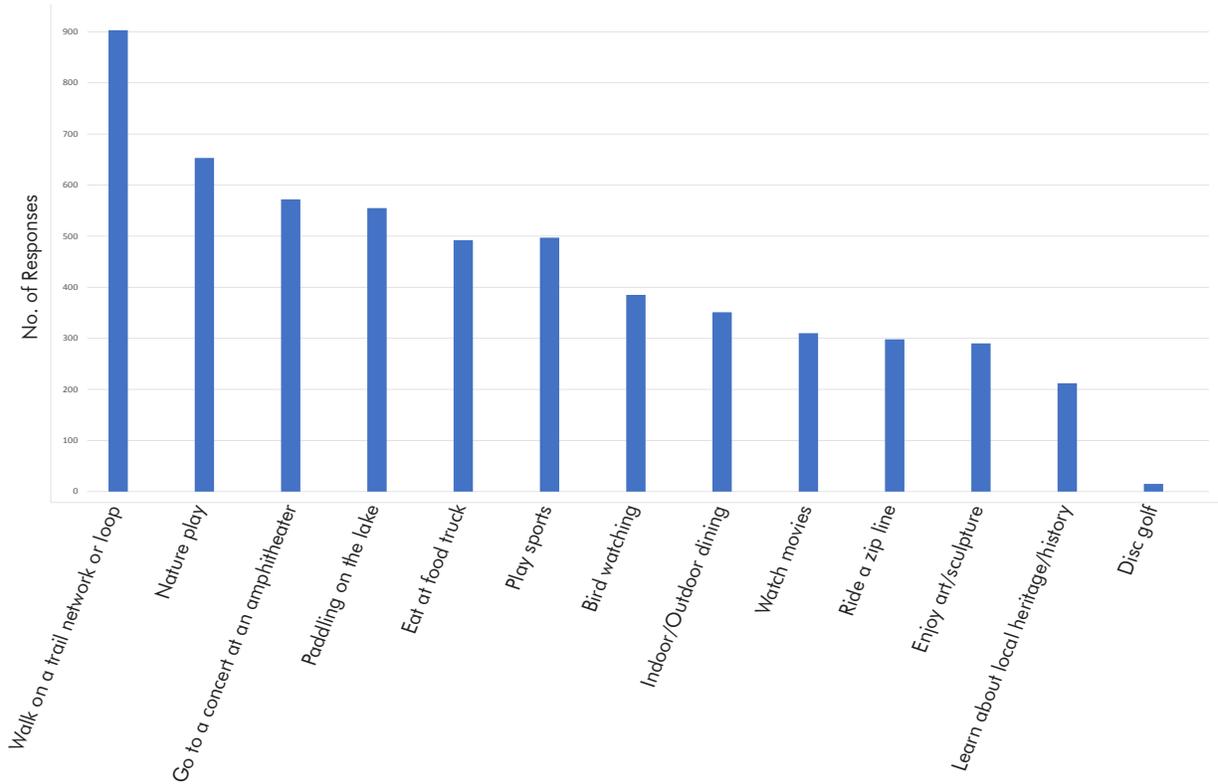
# Public Engagement

## Top 5 Amenities

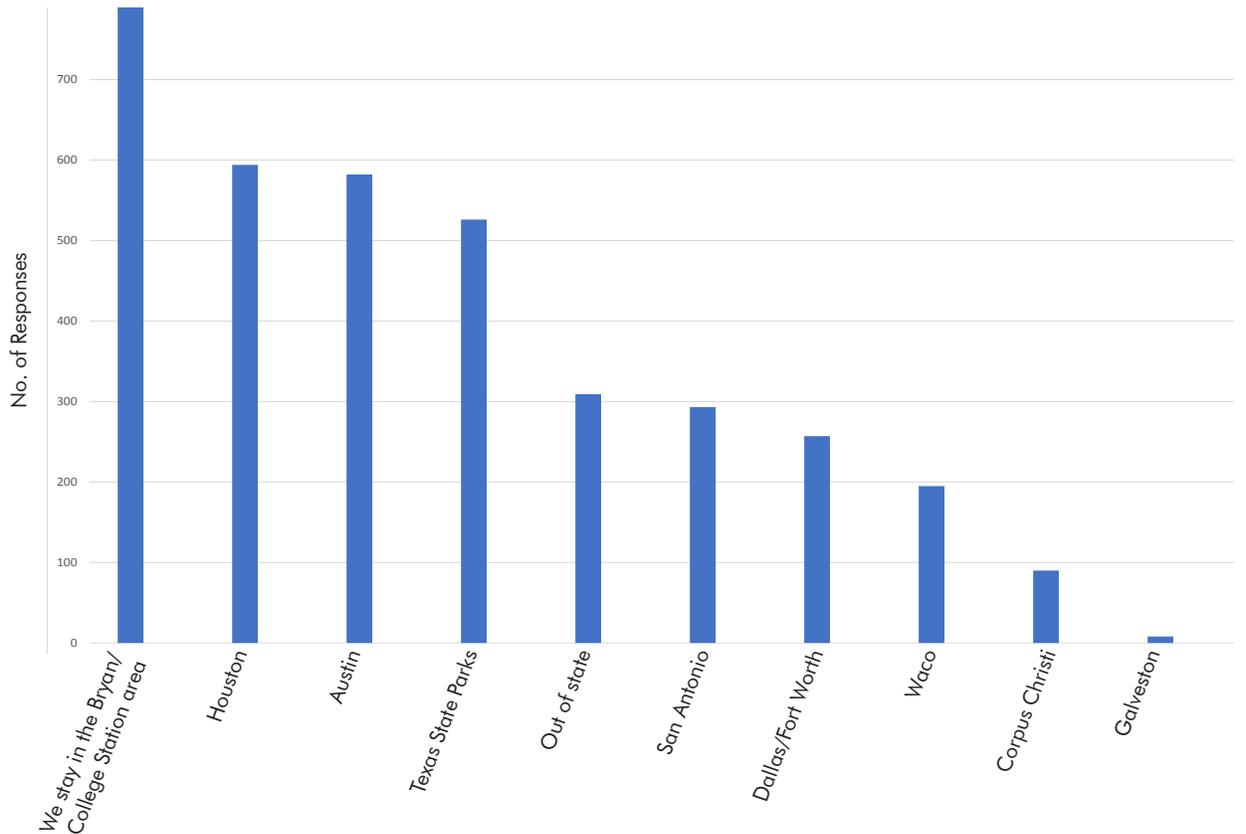


PROGRAM STATEMENT

### Which activities would you like to do in the future Regional Park?

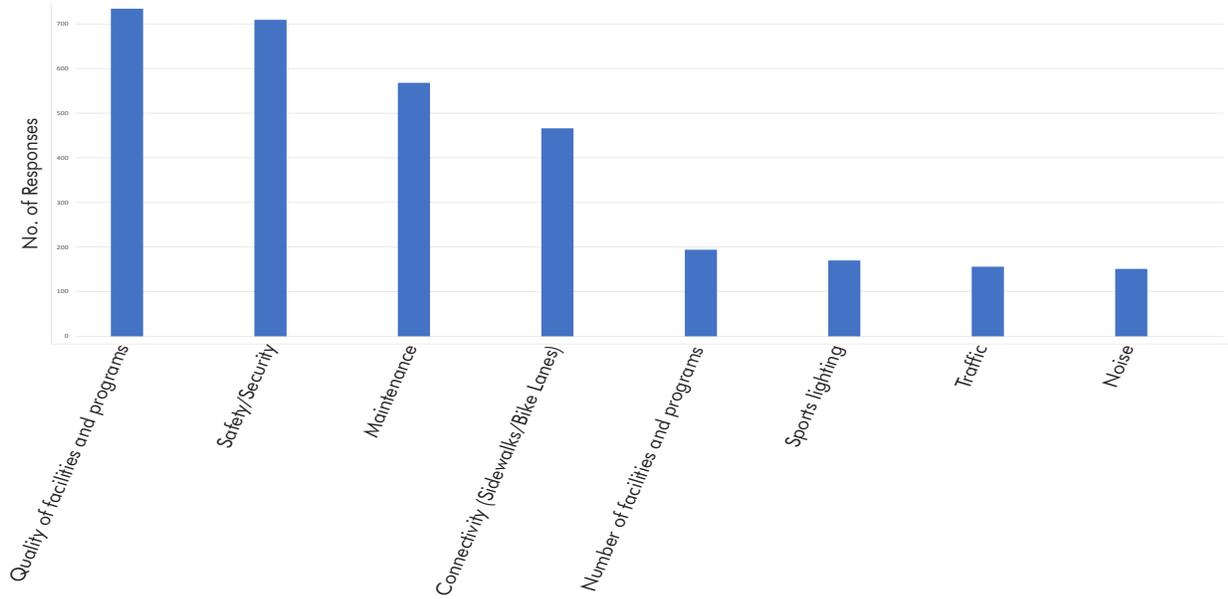


### Where do you and members of your family currently travel for recreation?

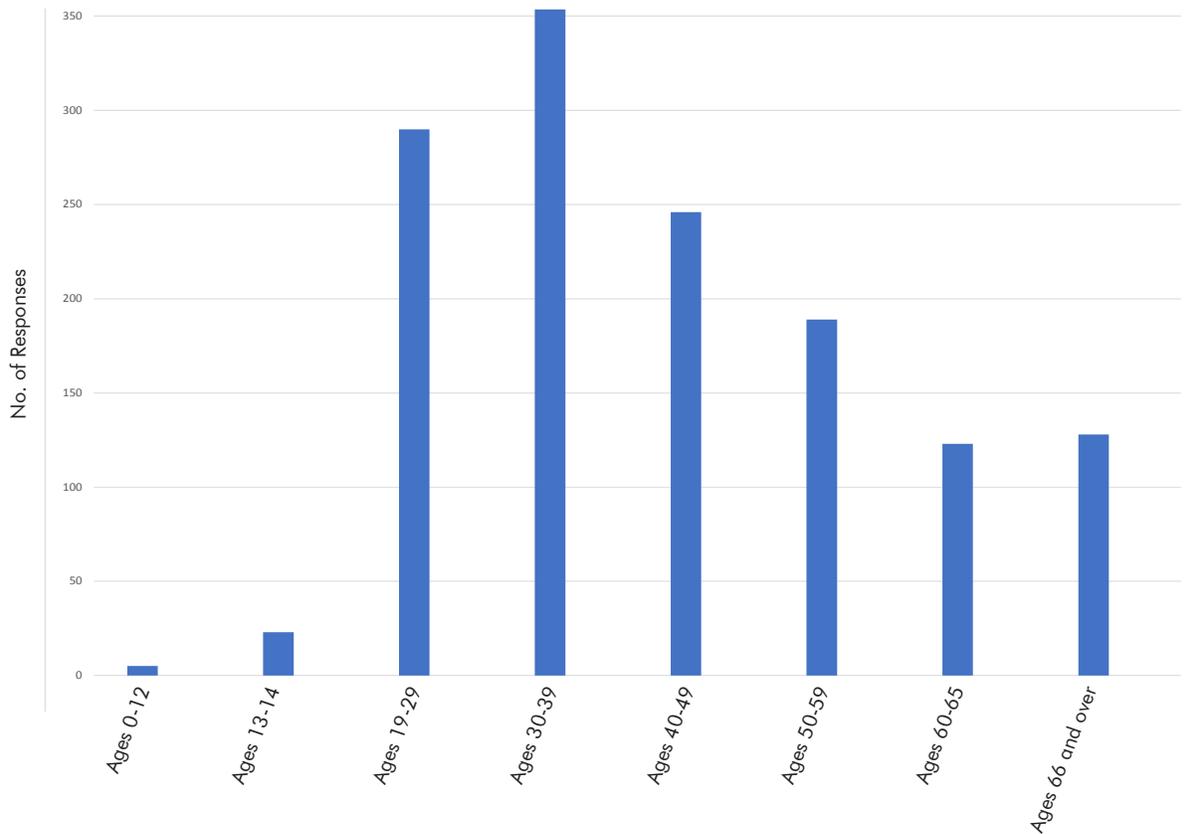




### What is most important to you about the future Regional Park?



### What is your age?



# Public Engagement

## First Friday

Burditt Staff participated in the June and July First Fridays by providing a booth space. The booth served to raise awareness about the park project, advertise for the Town Hall Meetings and provide an interactive game for residents.



## Town Hall #1

A total of 95 residents attended the Town Hall #1 for the project. Residents were asked to vote on preferences for park program and were also provided opportunities to draw concepts on project site aerials.



## Town Hall #2

A total of 103 residents attended Town Hall #2. At this meetings, residents were presented with graphics depicting different park program options, and asked to vote on their preference.



PROGRAM STATEMENT



# BRYAN REGIONAL PARK



CONCEPTUAL PROGRAM AREAS - DIAGRAM 1

# BRYAN REGIONAL PARK



CONCEPTUAL PROGRAM AREAS - DIAGRAM 2

# BRYAN REGIONAL PARK



CONCEPTUAL PROGRAM AREAS - DIAGRAM 3

PROGRAM STATEMENT



# 06 Existing Document Review

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# Existing Document Review

## BLUEPRINT 2040

BluePrint 2040, the Comprehensive Plan for the City of Bryan, serves as the community's long range vision for how residents and leaders desire to develop the community. Adopted in 2016, BluePrint 2040 articulates the Community Vision along with Goals and Action Items for the long term development of the community as they relate to Economy, Health and Wellness, Land Use, Community Appearance and Parks, Recreation and Open Space. Collectively, these serve as guidance for the Regional Park Project.

## COMMUNITY VISION

The following vision statement was developed by stakeholders and City of Bryan officials through the course of the comprehensive planning process.

*Bryan is a thriving, diverse, historic City where people are proud of their heritage, compassionate to one another, and enjoy their family-oriented community to the fullest.*

*City of Bryan Council Strategic Plan Vision Statement (2015)*

The vision statement functions as an overarching statement which connects each goal to the underlying reason for pursuing a goal or implementing a specific action item. For the purpose of the Bryan Regional Park, we understand that for the City of Bryan, significance is placed on developing a thriving, diverse community, proud of its heritage. As such, exploring opportunities to communicate the history of the site legacy, can ensure this rich heritage is a piece of City history which residents connect to and can be proud of. Additionally, exploring opportunities to celebrate diversity and facilitate the long term health and wellness of residents through the park development, can ensure the Regional Park Project and its program, connects to the City of Bryan Community Vision.

## BLUEPRINT 2040 GOALS

BluePrint 2040 articulates 2016 Comprehensive Plan Goals and Priority Action Items as they relate to Economy, Health and Wellness, Community Appearance and Parks, Recreation and Open Space. The following is a summary of those Goals and Priority Action Items stated in the plan, as well as a summary of how the Bryan Regional Park Plan development can align with these goals.

### Economy

#### Economy Goal

Diversify and strengthen Bryan's economy.

#### Priority Action Item

Develop intense neighborhood stabilization efforts in underserved areas of the City in order to eliminate blight, increase housing choices, and stimulate new investments.

#### Park Program Opportunity

The future development of the park should take into consideration impact on adjacent neighborhoods. Specifically, consideration should be made for how the park development can aid in the stabilization of the neighborhoods and attract new investment or residential infill and redevelopment within the Lakeview and Williamson Subdivisions.

#### Priority Action Item

Target infrastructure improvements along South College Avenue and Texas Avenue to increase their attractiveness and desirability to businesses and customers.

#### Park Program Opportunity

The City's investment in the Bryan Regional Park is in line with the Priority Action Item of targeting infrastructure investments along the South College Corridor. Coordinating existing capital improvement plans for streetscapes with future plans for the park development will ensure the park enhances the long range development of the Midtown Corridor.

## **Health And Wellness**

### Health and Wellness Goal

Encourage active lifestyles and healthy living.

### Park Program Opportunity

By providing for a variety of indoor and outdoor recreation opportunities, the Regional Park can aid in the encouragement of active lifestyles and healthy living for Bryan residents.

## **Community Appearance**

### Community Appearance Goals

Celebrate the City's diversity, distinct history, and unique characteristics.

Strengthen Bryan's image, identity, and aesthetic appeal.

### Community Appearance Priority Action Item

Identify key locations for public art-consider combining these elements with gateway features or in key districts/corridors, and develop a signage design plan that incorporates a consistent conceptual design for primary and secondary gateways features and wayfinding signage.

### Park Program Opportunity

By incorporating public art into park gateway design and coordinating park signage design with the Midtown branding and wayfinding conceptual designs, the Regional Park can visually connect to the Midtown corridor through design elements.

## **Parks, Recreation, Open Space And Trails**

### Parks, Recreation, Open Space and Trails Goals

Create a system of parks, open spaces, trails and facilities that meet the needs of residents of all ages.

Pursue regional park and recreation opportunities.

### Parks, Recreation, Open Space and Trails Priority Action Item

Explore trail linkages through utility easements, Right of Ways, and creek corridors to connect existing and future parks, schools, Downtown Bryan, and retail as the City develops.

### Park Program Opportunities

Evaluating existing utility easements and creek corridors on the park site and coordinating proposed trail development with future off site trails, will further enhance connectivity of the community. Strong connections to the South College Corridor will also enable connectivity of Downtown to the park site.

### Parks, Recreation, Open Space and Trails Priority Action Item

Provide all-inclusive playgrounds in new parks, and maintain, upgrade, and replace aging playground equipment.

### Park Program Opportunities

Through the course of designing the Regional Park, design should allow for access of individuals of all abilities. This could also include facilities designed specifically for individuals with disabilities to enjoy baseball, soccer or other traditional field sports.



# 07 Program Analysis

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# Program Analysis

Programming efforts are primarily a discovery process to determine what are the design parameters for this project. The process has revealed quite a sum of information for consideration. The process included evaluation of existing documents, discourse with City staff, survey(s), interviews with key stakeholders, public town hall meetings, market analysis, conversations with the Parks & Recreational Advisory Board, site evaluations, and projections of both data and ideas.

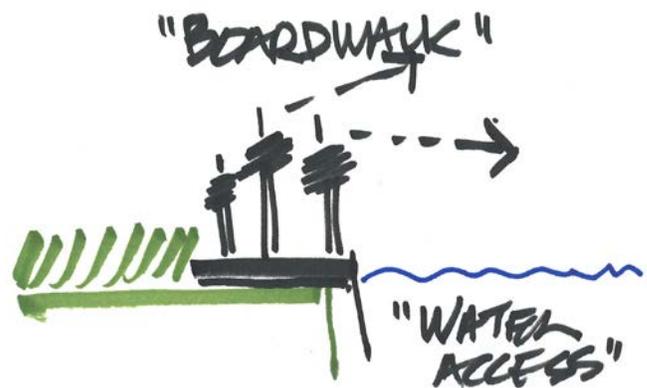
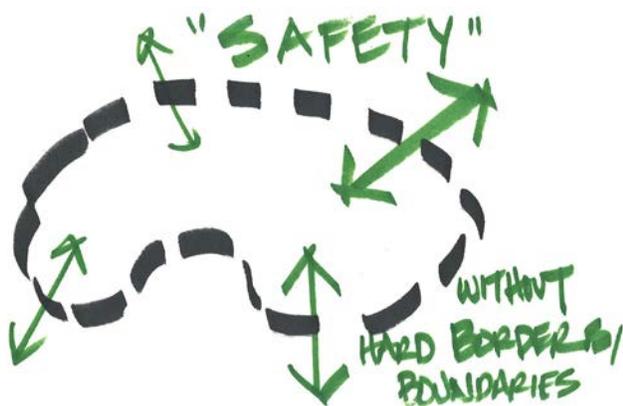
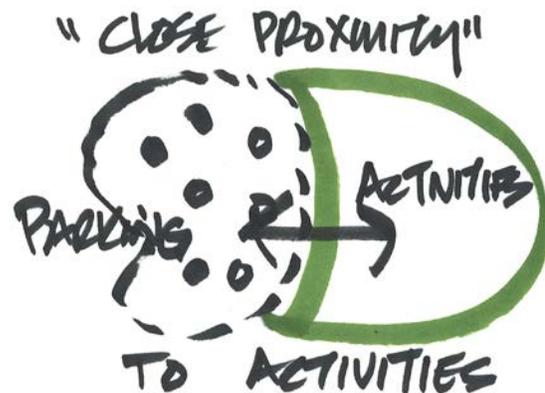
The information discovered was then distilled into a format for evaluation and further refinement. Furthermore, the Master Planning effort will continue to discover new collaboration of ideas and integrate resulting schemes.

## Summary Program Statements:

1. Open Space & Trails
2. Indoor/Outdoor Active Recreational Facilities
3. Access To Water
4. Preservation & Restoration Of Nature
5. Host Event Venues

## Program Analysis Commentary:

Descriptions, gross area, presumed use(s) are included. Uses/elements are organized per function and land use.



# Program Analysis

## INTERIOR

TYPE	DESCRIPTION	UNIT	L	W	SF	NET	UNIT	GROSS	UNIT	NOTE
CHILDCARE	low shelves; changing stations; toy bins; carpet; low furniture; plush furniture	1	70	29	2000	2,000.00	SF	2,900.00	SF	ADJACENT TO RESTROOMS; CHILDREN AREA
CLASSROOM ART / CRAFT	crafts; pottery; shelves; sturdy tables;	2	30	13	400	800.00	SF	1,160.00	SF	
CLASSROOM LARGE	multipurpose room; moveable tables and chairs	2	50	24	1200	2,400.00	SF	3,480.00	SF	
CLASSROOM MEDIUM	multipurpose room; moveable tables and chairs	7	40	20	800	5,600.00	SF	8,120.00	SF	
CLASSROOM SMALL	multipurpose room; moveable tables and chairs	4	20	20	400	1,600.00	SF	2,320.00	SF	
MUSIC/DANCE ROOM	wood or dance appropriate flooring; closet and storage space; media capabilities; acoustic consideration	1	20	20	400	400.00	SF	580.00	SF	
CLASSROOM KITCHEN	standard kitchen appliances; food preparation island; counters; cabinets	1	30	13	400	400.00	SF	580.00	SF	
CLASSROOM LAB SCIENCE / MAKER	multipurpose room; moveable tables and chairs	1	70	29	2000	2,000.00	SF	2,900.00	SF	
MEDIA/READING ROOM	tables; computers; comfortable chairs; low tables; carpet;	1	70	29	2000	2,000.00	SF	2,900.00	SF	
CONFERENCE LARGE	conference table; roller chairs; media capabilities;	2	20	20	400	800.00	SF	1,160.00	SF	
CONFERENCE SMALL	small room; glass door or sidelight; comfortable chairs and low table; low sound transmission from room	2	15	13	200	400.00	SF	580.00	SF	
EXERCISE LARGE	sport floor; media capabilities;	1	100	40	4000	4,000.00	SF	5,800.00	SF	
EXERCISE MEDIUM	sport floor; media capabilities;	4	70	29	2000	8,000.00	SF	11,600.00	SF	
EXERCISE SMALL	sport floor; media capabilities;	3	50	20	1000	3,000.00	SF	4,350.00	SF	
FITNESS	fitness equipment; high ceilings; media capabilities; ample lighting	1	100	40	4000	4,000.00	SF	5,800.00	SF	
SNACK ROOM	vending machine; benches; tables; sink; counters refrigerator;	1	40	20	800	800.00	SF	1,200.00	SF	
CAFE	small counter café service; kichenette; coffee / espresso machine; cold case; smoothies	1	30	20	600	600.00	SF	870.00	SF	
INDOOR RAQUETBALL	full size court; glass backcourt; possibly wood floors	4	40	20	800	3,200.00	SF	4,640.00	SF	
FIRST AID / NURSE CHILDREN	cabinets; examination bench; task lighting;	1	10	12	120	120.00	SF	174.00	SF	
GAME CHILL ZONE	foosball; air hockey; ping pong; gaming stations; charging stations; movies; board games; couches; tables; pool table; fuse ball; simon says board	1	50	24	1200	1,200.00	SF	1,740.00	SF	
GYM	full and half court configuration of basketball; seating	8	120	47	5600	44,800.00	SF	64,960.00	SF	
INDOOR PLAY	indoor playground; cushion flooring; high ceilings	1	100	40	4000	4,000.00	SF	5,800.00	SF	
KITCHEN	commercial appliances; stainless steel food preparation area;	1	30	20	600	600.00	SF	870.00	SF	
LOBBY LARGE	counter space; open and approachable; task lighting; media capabilities; communications and command technologies	1	50	24	1200	1,200.00	SF	1,740.00	SF	
OFFICE	-	4	10	12	120	480.00	SF	696.00	SF	ADMIN CLUSTER
OFFICE EXECUTIVE	desk; chairs	1	20	8	160	160.00	SF	232.00	SF	ADMIN CLUSTER
OFFICE OPEN PLAN	-	1	40	20	800	800.00	SF	1,160.00	SF	ADMIN CLUSTER
OFFICE SHARED	-	2	20	12	240	480.00	SF	696.00	SF	ADMIN CLUSTER
OFFICE WORKROOM	-	1	30	13	400	400.00	SF	580.00	SF	ADMIN CLUSTER
RESTROOM CHILDREN	-	2	30	20	600	1,200.00	SF	1,740.00	SF	CHILDREN AREA
RESTROOM LARGE	-	2	50	20	1000	2,000.00	SF	2,900.00	SF	
RESTROOM LOCKER	day use lockers; benches; showers; waterclosets; sinks; ADA compliant	2	60	25	1500	3,000.00	SF	4,350.00	SF	
RESTROOM MEDIUM	-	4	30	20	600	2,400.00	SF	3,480.00	SF	
RESTROOM SMALL	single occupant; possibly unisex; watercloset; sink; ADA compliant	4	10	10	100	400.00	SF	580.00	SF	
STAFF BREAK ROOM	counters; storage; sink; refrigerator; gathering table and chairs; media capabilities;	1	30	13	400	400.00	SF	580.00	SF	ADMIN CLUSTER
STORAGE LARGE	-	2	30	20	600	1,200.00	SF	1,740.00	SF	
STORAGE PANTRY	storage space for food items; possible house goods and clothing storage	1	40	20	800	800.00	SF	1,160.00	SF	
STORAGE SMALL	-	4	10	10	100	400.00	SF	580.00	SF	
STORAGE UTILITY	-	3	10	10	100	300.00	SF	435.00	SF	
SUPPORT DATA / SERVER	-	1	10	10	100	100.00	SF	145.00	SF	
SUPPORT ELECTRICAL	-	2	10	10	100	200.00	SF	290.00	SF	
SUPPORT MECHANICAL	-	2	20	10	200	400.00	SF	580.00	SF	
SUPPORT RISER ROOM	-	2	10	10	100	200.00	SF	290.00	SF	
						109,240.00	SF	158,398.00	SF	
						49,158.00	SF			
						158,398.00	SF			
INDOOR TRACK	sport floor; elevated track	1	1080	10	8000	8,000.00	SF	12,000.00	SF	
PARKS FACILITY	offices, storage, support	1	100	80	8000	8,000.00	SF	12,000.00	SF	
CONCESSIONS/RESTROOMS	Restrooms/Concessions at ball field complex	1			12200	12,200.00	SF	17,690.00	SF	
TOURNAMENT CENTER	overlook, AC, meeting space, upper deck viewing	1			12200	12,200.00	SF	17,690.00	SF	
COMMERCIAL PAD	restaurant pad/commercial development	1			3400	3,400.00	SF	4,930.00	SF	
						43,800.00	SF	64,310.00	SF	



# Program Analysis

## SEMI-INTERIOR

TYPE	DESCRIPTION	UNIT	L	W	SF	NET	UNIT
BOATHOUSE	water access; boat storage; office(s); shade	1	170	73	12350	12,350.00	SF
PAVILION SPORTS	multi-purpose sports (basketball, futsal, pickleball,etc.)	2	130	50	6500	13,000.00	SF
PAVILION LARGE	large gathering pavilion; seating; multi-purpose sports (basketball, futsal, pickleball,etc.)	1	60	27	1600	1,600.00	SF
PAVILION MEDIUM	medium gathering pavilion; seating;	4	20	20	400	1,600.00	SF
PAVILION SMALL	picnic tables;	12	10	10	100	1,200.00	SF
RESTROOM OUTDOOR	-	6	20	10	200	1,200.00	SF
WATER PLAY PUMP HOUSE	-	1	30	13	400	400.00	SF
WATER PLAY RESTROOMS	-	2	30	20	600	1,200.00	SF
WATER PLAY SUPPORT	storage; lifequard cubbies; media capabilities	1	30	13	400	400.00	SF
PAVILION MEDIUM WATER PLAY		2	30	13	400	800.00	SF
PAVILION SMALL PLAY		4	10	10	100	400.00	SF
STADIUM SEATING (BALL FIELD)		1	320	128	41000	41,000.00	
MAINTENANCE BUILDING	offices, storage, warehouse	1	100	40	4000	4,000.00	SF
						79,150.00	SF
						35,617.50	SF
						<b>114,767.50</b>	<b>SF</b>



# Program Analysis

## EXTERIOR

TYPE	DESCRIPTION	QTY	SF	NET	UNIT	NOTE
AMPHITHEATER STAGE	movies; events; pa system;	1	3,200.00	3,200.00	SF	BASED ON 400 PEOPLE CAPACITY
BIKE RACKS	-	10	15.00	150.00	SF	32 BIKE TOTAL CAPACITY
BIKE SHARE RACKS	rentable; connectivity to Bryan hiking trails	1	15.00	15.00	SF	
MULTIPURPOSE FIELD	soccer; baseball diamond; kickball; football; open space; track	4	90,000.00	360,000.00	SF	FOOTBALL, SOCCER AND BASEBALL FIELD CAPACITY (320'x220')
OUTDOOR FITNESS STATIONS	-	20	100.00	2,000.00	SF	
PARKING	ample parking for renters; van; bus; covered drop off	1070	500.00	535,000.00	SF	1 SPACE FOR EVERY 2 PEOPLE - ASSUME OCCUPANT LOAD OF 1200 PEOPLE
PLAYGROUND	Inclusive play; separation of public and camp; swings	6	7,500.00	45,000.00	SF	
POND	fishing; amenity; kayak	1	1,023,660.00	1,023,660.00	SF	AS NEEDED PER STORMWATER REQUIREMENTS (23.5 ACRES APPROX)
ROPES / ADVENTURE COURSE	rock climbing repelling tower; zip line; storage; media capabilities; outletsteam building; summer camps; rentable	1		-	SF	
SAND VOLLEYBALL	-	2	4,480.00	8,960.00	SF	36X60' WITH 10' RUN-OFF
SIDEWALKS / PLAZA	Safe sidewalks; connectivity throughout the site; connectivity to site	1	300,000.00	300,000.00	SF	
SITE LIGHTING	safety lighting; field lighting	1		-	SF	AS NEEDED PER SITE REQUIREMENTS
SPLASH PAD	-	1	2,000.00	2,000.00	SF	
WATER PLAY AREA	spray play, lazy river, natural water play, etc	1	75,000.00	75,000.00	SF	
TRAIL NATURE	multiple nature trails; educational	1		-	SF	AS NEEDED PER SITE REQUIREMENTS
TRAIL WALKING/RUNNING		1		126,720.00	SF	MINIMUM 2 MILE LOOP W/ OPTION FOR SMALLER INTERIOR LOOPS AS NEEDED
ZIP LINE AND ROCK CLIMBING TOWER		3	400.00	1,200.00	SF	
ADVENTURE COURSE		1		-	SF	AS NEEDED PER SITE REQUIREMENTS
BMX COURSE		1	38,000.00	38,000.00	SF	
DOG PARK		1	43,000.00	43,000.00	SF	
STANDARD: DIAMOND FIELDS	5-plex; 300' fields + 2-plex; 200' fields	1	497,400.00	497,400.00	SF	
PIERS		1	37,226.00	37,226.00	SF	
TRELLIS/URBAN PLAZA	corner of s. college & v. maria, remove dam	1	39,500.00	39,500.00	SF	
PEDESTRIAN ENTRANCE	t-intersection of v. maria & wellborn	1	4,800.00	4,800.00	SF	
ROADWAY	roadway w/ median	1	150,000.00	150,000.00	SF	
				3,292,831.00	SF	
				1,481,773.95		
				4,774,604.95	SF	
						109.61 ACRES



## 08 Exhibits

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# Exhibits - Master Plan Concept



- 1 INDOOR RECREATION/EVENT FACILITIES**
  - RECREATION CENTER
  - FOOD TRUCK COURT
  - GATHERING NODES
  - PLAYGROUNDS
  - SPLASH PAD
  - OPEN GREEN
  - BOAT HOUSE
  - AMPHITHEATER
  - BOARDWALK
  - ENHANCED COLLEGE/VILLA MARIA ENTRANCE
  - EXPANDED LAKE
  - PARKING (241 SP)
- 2 RECTANGULAR FIELDS**
  - TERRACED MULTI-USE FIELDS (4) - ARTIFICIAL TURF
  - RESTROOMS/CONCESSION
  - INTERACTIVE SOCCER WALL
  - GATHERING NODES
  - PARKING
  - PATHS
  - OVERLOOK
  - PARKING (298 SP)
- 3 FAMILY RECREATION**
  - NATURE PLAY
  - EDUCATIONAL
  - PLAYGROUNDS
  - PICNIC SHELTERS/GROUP PAVILIONS
  - OPEN PLAY
  - DOG PARK
  - WATER PLAY
  - PICNIC PAVILIONS
  - GATHERING PAVILIONS
  - TRAILS
  - STREAM RESTORATION
  - PARKING (157 SP)
- 4 DIAMOND FIELDS**
  - 300' FIVE-PLEX FIELDS
  - 200' TWO-PLEX LITTLE LEAGUE FIELDS
  - RESTAURANT/RESTROOMS/CONCESSIONS
  - PLAYGROUNDS
  - BATTING CAGES (10)
  - MAINTENANCE YARD
  - GATHERING NODES
  - PARKING (375)
- 5 WILLIAMSON PARK/ASTIN PARK**
  - EX. SKATE PARK
  - EX. PICNIC SHELTERS
  - BASKETBALL COURT (3)
  - SAND VOLLEYBALL COURTS (2)
  - FISHING PIER
  - KAYAK LAUNCH
  - RESTAURANT PAD SITE
  - PEDESTRIAN BRIDGE
- 6 ADVENTURE ZONE**
  - SKY TREK/ADVENTURE COURSE
  - ROCK WALL
  - ZIP LINE
  - PLAYGROUNDS AND VIEWING
  - BMX TRACK
  - VELOWAY (2 MILE LOOP)

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND ARE NOT FOR REGULATORY APPROVAL, BIDDING, PERMIT OR CONSTRUCTION PURPOSES.  
 LANDSCAPE ARCHITECT: CLAUDIA T. WALKER, # 2987  
 08.07.2018





## EXHIBITS – PER

### PRELIMINARY ENGINEERING REPORT

Preliminary engineering related to the conceptual planning of the Bryan Regional Park is currently focused on existing infrastructure in the immediate vicinity around the park while the overall plan is being formulated. This infrastructure is being evaluated under present conditions to identify areas of potential weakness once elements from the park are added. This work will set the stage for analyzes of future infrastructure improvements once more accurate demands from the park plan are available. Following is a summary of the work that is underway on the major infrastructure in and around the park.

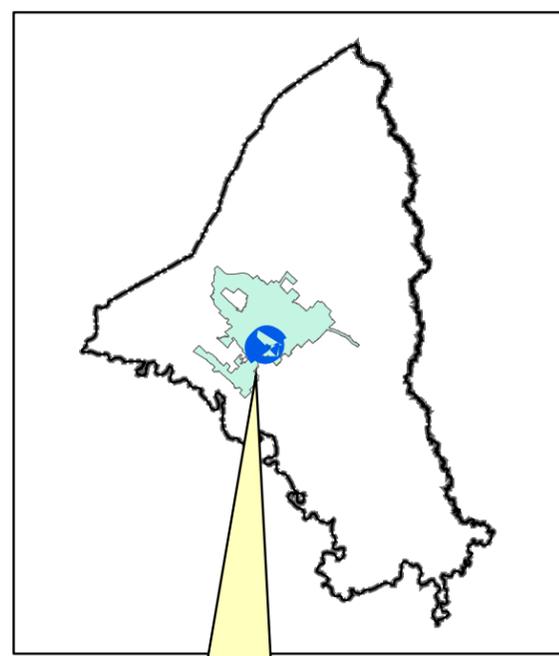
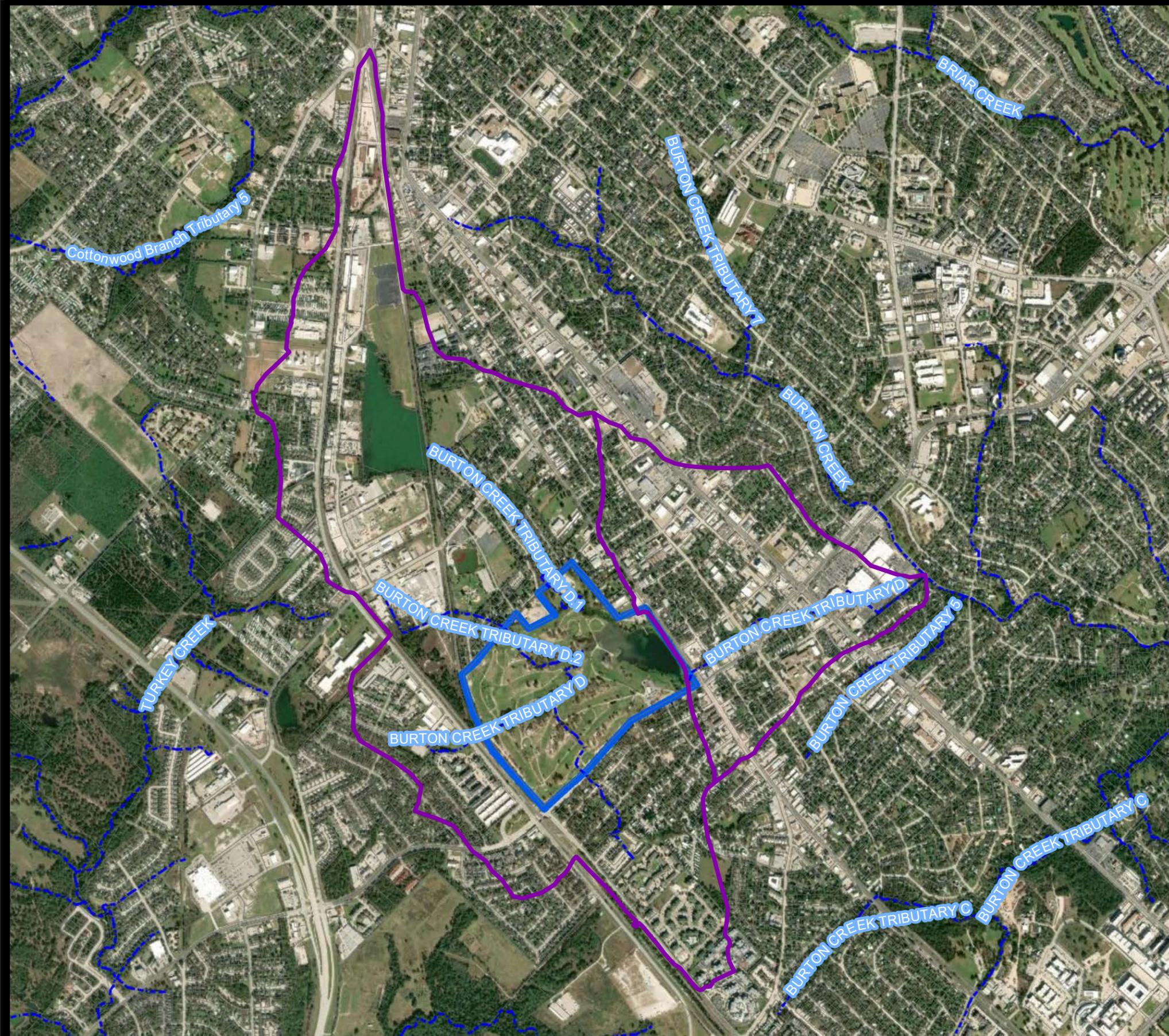
Boundary & Topographic Surveying – The original plan for developing a topographic survey of the Bryan Regional Park was to use LIDAR imaging equipment mounted on an aerial drone. CEC has since learned that the park is in the direct flight path of Easterwood Airport and the aerial drone could not be used without a variance from the FAA. This variance was initially thought to be a short-term process that would not delay the aerial mapping, but as we researched the issue we learned that was not the case and the variance request was going to take months to be considered.

To keep the survey moving forward, CEC made the decision to use standard GPS survey equipment mounted on a utility vehicle driven across the entire site. The data from that operation would be supplemented by conventional, hand-held equipment for locations that were not accessible using the utility vehicle. Surface data in high-traffic areas along Villa Maria and S. College was obtained with truck-mounted LIDAR. All available topographic data has now been converted to a digital surface in a CADD drawing for use on future designs and with computer modeling efforts. Survey crews will continue to obtain supplemental data in locations where additional information is needed.

The boundary survey for the park has not yet been initiated. That work is scheduled for later this month. It will likely take five days of field work and about five more days of office work to have the final document.

Drainage System Analysis – As the scope of the park project was being developed, one of the concerns raised by the City staff was the street flooding that occurs at the intersection of Villa Maria and South College during heavy rainfall events. This portion of the City, including the entirety of Bryan Regional Park, lies within the drainage basin of Tributary D of Burton Creek. At least two previous studies of the drainage basin were initiated by the City of Bryan to address the flooding issue and update the FEMA Floodplain maps. Neither of the studies were finalized but both produced HEC-RAS computer models of Tributary D that analyzed water surface elevations upstream, inside and downstream of the park.

CEC obtained a copy of the HEC-RAS model from the City of Bryan originally prepared by Dodson & Associates, Inc. of Houston. This functioning model was not adopted by FEMA and its output was not used for the current FEMA Floodplain maps, but it was a very helpful tool in CEC's effort to analyze the drainage issues around the park. The CEC staff is currently working to incorporate recently obtained survey data to revise inputs in the model that accurately reflect existing conditions inside the park, as well as in off-site areas where house flooding has been reported. Once the existing conditions model is completed, it will be modified to test options for mitigating the flooding problems in the area.



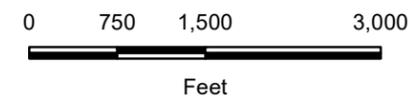
**PROJECT LOCATION**

**LEGEND**

-  Watershed
-  STREAM
-  Project Location



1 inch = 1,472 feet



NOTES:

CIVIL ENGINEERING CONSULTANTS  
 dba DON DURDEN, INC.  
 11550 IH 10 WEST, SUITE 385  
 SAN ANTONIO, TEXAS 78230-1037  
 TEL: (210) 641-9999  
 FAX: (210) 641-8440  
 REGISTRATION #F-2114



**SUPER PARK MASTER PLAN  
 AERIAL MAP**



# EXHIBITS - PER

Modelling of these flood control options are expected to be complete by the end of August, thus allowing the recommended options to be incorporated into the conceptual master plan.



Figure 1 - Flooding at South College Avenue (Looking North) Near Davis Street



Figure 2 - Flooding at South College and Roundtree Intersection (Looking West)



Figure 3 - Flooding of South College at existing Culvert near Villa Maria







## EXHIBITS – PER

Removal of Sediments in the Lake - One of the questions that has arisen in many of the public and private meetings on the park has been whether the lake can be deepened. Lowering the bottom of the lake will have no impact on the drainage issues discussed above, but it could allow for other uses of the lake and improve habitat for fish or other aquatic species. A related question is whether unsafe arsenic levels are present in the lake sediments and how does that impact the process for sediment removal.

The first question is relatively easy to address. The lake bottom can be lowered in either of two ways. One is by dredging which does not require that the water be removed while the operation is conducted. Spoils from the dredge would be pumped to a point on the shore where it is de-watered and removed. The alternate method is to drain the lake, then allow it to dry sufficiently so that conventional excavation equipment can access the lake bottom. Both methods would allow the lake shoreline to be reshaped as desired, but they will both kill virtually all aquatic life in the lake. Of the two methods, dredging will be more expensive by a large margin.

The question of arsenic in the lake sediment has been answered by previous studies that were provided to federal, state and local officials for review. On June 8th, staff members from Bryan, CEC and Burditt met with Ms. Kimberly Sullivan, P.E. who was the person in charge of remediation program for the Elf Atochem facility.

She shared a recent report by AECOM who studied the lake sediments and found low levels of arsenic in the top few inches. The contaminate levels were below the threshold levels for sediments at the bottom a lake, but they are high enough that the sediment cannot be relocated to a land surface where humans may be exposed to it. The contaminate levels are not high enough to require that the sediment be placed in a hazardous waste landfill.

The AECOM report recommended removing the top six inches of sediment in the lake and taking it to the Twin Oaks Landfill in Grimes County.

*“Sediment samples were collected from 10 locations at Municipal Lake. Samples were analyzed for TCLP arsenic and compared to the TCLP regulatory limit of 5 mg/L. None of the samples were considered hazardous. Dredging, storage, de-watering, transportation, and disposal of the sediment from the lake to a depth of 6 inches would incur cost of approximately \$3,031,380. It should be noted that the sediments would have to dry or de-water enough before disposal to pass the paint-filter test for disposal in any landfill.”*

Youngerman, J. (2016) “MUNICIPAL LAKE SEDIMENT DISPOSAL COSTS”, Pg. 2, AECOM, Austin, TX.





SCALE: 1"=300'  
(24"x36")

0 300 600 Feet

**LEGEND**

- EXISTING TRIBUTARY —
- PROPOSED COUNTRY CLUB LAKE ▬▬▬▬▬▬
- EXISTING COUNTRY CLUB LAKE - - - - -
- PROPOSED DETENTION/RETENTION AREA ▬▬▬▬▬▬

**TRAVIS B. BRYAN PARK  
POTENTIAL DETENTION  
AND SEDIMENTATION  
AREAS EXHIBIT**

**CEC** PREPARED BY:  
CIVIL ENGINEERING CONSULTANTS  
4101 S. TEXAS AV. STE. A  
BRYAN, TX • PH. 979/844-6212

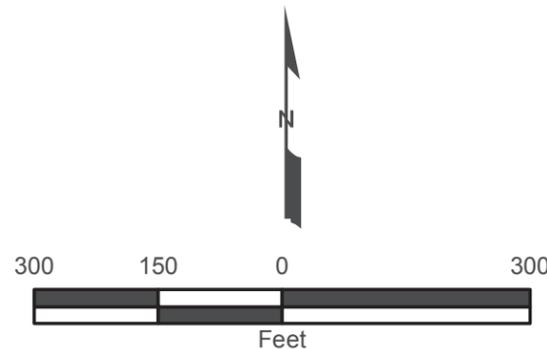




**Legend**

-  Sediment Sample Location
- 6 Sample Location ID
- 0.263 TCLP Arsenic (mg/L)

Note: TCLP Regulatory Maximum Contaminant Level, Arsenic, 5 mg/L.



9400 Amberglen Blvd.  
Austin, TX 78729  
Phone: (512) 454-4797  
Fax: (512) 419-5474

Drawn by:  
GWC/AUS

Client: City of Bryan, Texas

Report: Sediment Sample Locations

**Country Club Lake  
Sediment Sample Locations**

Date: 3/8/2016

GIS File: Country\_Club\_Lake\_Samples

Figure: 1



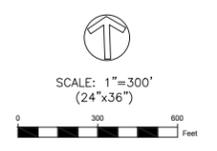
## EXHIBITS - PER

[Traffic Impact Analysis](#) - Analysis of the existing roadways around the Bryan Regional Park began in early May with the capture of traffic count data at five intersections in the immediate vicinity of the park. The five intersections are:

- Villa Maria @ Willis VanHooker
- Villa Maria @ S. College
- Villa Maria @ Cavitt
- S. College @ Williamson
- Carson @ Bomber Drive

This was undertaken prior to the end of the spring semester for both Texas A&M and Blinn College to quantify traffic volumes on a typical day. A computer model for the existing Level of Service (LOS) is currently being developed with completion anticipated prior to the end of August. This same model will later be used to evaluate the traffic impacts of anticipated development once park plan is formulated.





**TRAVIS B. BRYAN PARK  
TRAFFIC COUNT  
INTERSECTION LOCATION  
EXHIBIT**

**CEC** PREPARED BY:  
CIVIL ENGINEERING CONSULTANTS  
4101 S. TEXAS AV. STE. A  
BRYAN, TX • PH: 979/844-0212



# EXHIBITS - PER

## Bomber Dr. @ W. Carson St.

Leg Direction	W Carson St Westbound						Bomber Dr Northbound						W Carson St Eastbound						Int Total
	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	
6:00	134	3	0	137	0	0	7	15	0	22	0	0	5	106	0	111	0	0	270
7:00	256	8	0	264	0	0	9	16	0	25	0	0	13	289	0	302	0	0	591
8:00	179	0	0	179	0	0	8	12	0	20	1	0	7	153	0	160	0	0	359
9:00	95	4	0	99	0	0	4	9	0	13	0	1	4	143	0	147	0	0	259
10:00	134	4	0	138	0	0	3	12	0	15	0	0	7	131	0	138	0	0	291
11:00	195	5	0	200	0	0	7	8	0	15	1	0	12	204	0	216	0	0	431
12:00	212	6	0	218	0	0	8	9	0	17	0	0	10	183	1	194	0	0	429
13:00	178	7	1	186	0	0	8	11	0	19	0	1	7	163	0	170	0	0	375
14:00	210	7	2	219	0	0	6	14	0	20	1	0	10	221	0	231	0	2	470
15:00	295	4	0	299	0	0	6	9	0	15	0	1	19	280	0	299	0	0	613
16:00	273	9	0	282	0	0	6	16	0	22	0	0	17	283	0	300	0	0	604
17:00	321	68	0	389	0	0	9	25	0	34	1	0	51	384	0	435	0	0	858
18:00	260	64	0	324	0	0	27	25	0	52	0	2	64	262	0	326	0	0	702
Grand Total	2742	189	3	2934	0	0	108	181	0	289	4	5	226	2802	1	3029	0	2	6252
% Approach	93.5%	6.4%	0.1%				37.4%	62.6%	0.0%				7.5%	92.5%	0.0%				
% Total	43.9%	3.0%	0.0%	46.9%			1.7%	2.9%	0.0%	4.6%			3.6%	44.8%	0.0%	48.4%			
Lights	2660	186	3	2849			103	173	0	276			223	2729	1	2953			6078
	97.0%	98.4%	100.0%	97.1%			95.4%	95.6%	0.0%	95.5%			98.7%	97.4%	100.0%	97.5%			97.2%
Articulated Trucks	12	0	0	12			0	0	0	0			0	18	0	18			30
	0.4%	0.0%	0.0%	0.4%			0.0%	0.0%	0.0%	0.0%			0.0%	0.6%	0.0%	0.6%			0.5%
Buses and Single-Unit Trucks	70	3	0	73			5	8	0	13			3	55	0	58			144
	2.6%	1.6%	0.0%	2.5%			4.6%	4.4%	0.0%	4.5%			1.3%	2.0%	0.0%	1.9%			2.3%
Pedestrians					0	0					4	5					0	2	
					0.0%	0.0%					100.0%	100.0%					0.0%	100.0%	

## College Ave. @ Williamson Dr.

Leg Direction	College Ave Southbound						College Ave Northbound						Williamson Dr Eastbound						Int Total
	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	
6:00	12	197	0	209	0	0	113	7	0	120	0	0	13	10	0	23	1	0	352
7:00	20	195	1	216	0	0	203	33	0	236	0	0	39	31	0	70	0	0	522
8:00	16	211	0	227	0	0	174	10	0	184	0	0	25	16	0	41	0	1	452
9:00	8	165	0	173	1	0	177	14	0	191	0	0	14	15	0	29	0	0	393
10:00	5	177	0	182	0	0	200	10	0	210	0	0	18	7	0	25	0	0	417
11:00	10	232	0	242	0	0	254	10	0	264	0	0	21	11	1	33	0	0	539
12:00	8	295	0	303	0	0	306	19	0	325	0	0	15	16	0	31	0	0	659
13:00	18	261	0	279	0	0	284	24	0	308	0	0	16	18	0	34	0	0	621
14:00	10	254	0	264	0	0	277	23	0	300	0	0	15	22	0	37	0	0	601
15:00	20	224	1	245	0	0	283	28	0	311	0	0	27	22	0	49	0	0	605
16:00	23	288	0	311	0	0	311	39	0	350	0	0	28	14	0	42	0	0	703
17:00	27	325	0	352	0	0	393	54	0	447	0	0	52	30	0	82	0	0	881
18:00	31	262	2	295	0	0	277	40	0	317	0	0	37	24	0	61	1	1	673
Grand Total	208	3086	4	3298	1	0	3252	311	0	3563	0	0	320	236	1	557	2	2	7418
% Approach	6.3%	93.6%	0.1%				91.3%	8.7%	0.0%				57.5%	42.4%	0.2%				
% Total	2.8%	41.6%	0.1%	44.5%			43.8%	4.2%	0.0%	48.0%			4.3%	3.2%	0.0%	7.5%			
Lights	199	3018	4	3221			3155	304	0	3459			314	233	0	547			7227
	95.7%	97.8%	100.0%	97.7%			97.0%	97.7%	0.0%	97.1%			98.1%	98.7%	0.0%	98.2%			97.4%
Articulated Trucks	0	11	0	11			8	0	0	8			0	0	0	0			19
	0.0%	0.4%	0.0%	0.3%			0.2%	0.0%	0.0%	0.2%			0.0%	0.0%	0.0%	0.0%			0.3%
Buses and Single-Unit Trucks	9	57	0	66			89	7	0	96			6	3	1	10			172
	4.3%	1.8%	0.0%	2.0%			2.7%	2.3%	0.0%	2.7%			1.9%	1.3%	100.0%	1.8%			2.3%
Pedestrians					1	0					0	0					2	2	
					100.0%	0.0%					0.0%	0.0%					100.0%	100.0%	

# EXHIBITS - PER

## Villa Maria Rd. @ Cavitt Ave.

Leg Direction	Cavitt Ave Southbound							Villa Maria Rd Westbound							Cavitt Ave Northbound							Villa Maria Rd Eastbound							Int Total	
	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW		
6:00:00	17	18	14	0	49	0	0	27	354	13	0	394	1	0	12	11	8	0	31	0	0	22	377	18	0	417	0	0	891	
7:00:00	51	58	45	0	154	0	0	44	791	46	0	881	0	1	33	53	71	0	157	0	0	119	1036	74	0	1229	0	0	2421	
8:00:00	44	33	39	0	116	0	1	61	605	43	0	709	0	0	42	34	37	0	113	1	3	48	1009	48	0	1105	0	0	2043	
9:00:00	28	37	26	0	91	0	0	31	547	31	0	609	0	0	25	29	24	0	78	0	1	30	725	61	0	816	0	0	1594	
10:00:00	31	30	30	0	91	0	0	33	707	16	0	756	0	0	22	40	38	0	100	0	0	41	782	47	0	870	1	0	1817	
11:00:00	53	47	33	0	133	0	0	30	756	25	0	811	1	4	36	36	47	0	119	0	1	45	898	49	0	992	0	0	2055	
12:00:00	50	45	39	0	134	0	0	27	904	38	0	969	0	0	50	45	60	0	155	1	0	39	911	53	0	1003	1	0	2261	
13:00:00	39	40	29	0	108	2	0	20	861	30	0	911	1	0	39	40	59	0	138	0	0	44	884	58	0	986	1	0	2143	
14:00:00	53	27	31	0	111	0	0	33	910	42	0	985	2	0	37	50	45	0	132	0	0	49	932	50	0	1031	0	1	2259	
15:00:00	66	38	22	0	126	1	0	38	885	44	1	968	1	1	59	65	83	0	207	1	1	66	956	51	0	1073	0	0	2374	
16:00:00	60	44	27	0	131	0	0	44	1042	40	0	1126	1	0	39	58	72	1	170	0	0	55	975	55	0	1085	0	0	2512	
17:00:00	71	50	18	0	139	0	0	40	1034	37	0	1111	0	0	50	83	95	0	228	0	0	89	1125	65	0	1279	0	0	2757	
18:00:00	48	29	18	0	95	0	0	20	829	26	0	875	0	1	36	25	57	0	118	0	1	35	795	24	0	854	0	0	1942	
<b>Grand Total</b>	611	496	371	0	1478	3	1	448	10225	431	1	11105	7	7	480	569	696	1	1746	3	7	682	11405	653	0	12740	3	1	27069	
% Approach	41.3%	33.6%	25.1%	0.0%				4.0%	92.1%	3.9%	0.0%			27.5%	32.6%	39.9%	0.1%				5.4%	89.5%	5.1%	0.0%						
% Total	2.3%	1.8%	1.4%	0.0%	5.5%			1.7%	37.8%	1.6%	0.0%	41.0%			1.8%	2.1%	2.6%	0.0%	6.5%			2.5%	42.1%	2.4%	0.0%	47.1%				
Lights	596	482	360	0	1438			440	10058	420	1	10919			472	560	662	1	1695			574	11252	635	0	12461			26513	
	97.5%	97.2%	97.0%	0.0%	97.3%			98.2%	98.4%	97.4%	100.0%	98.3%			98.3%	98.4%	95.1%	100.0%	97.1%			84.2%	98.7%	97.2%	0.0%	97.8%			97.9%	
Articulated Trucks	2	0	1	0	3			2	23	3	0	28			0	1	2	0	3			2	12	2	0	16			50	
	0.3%	0.0%	0.3%	0.0%	0.2%			0.4%	0.2%	0.7%	0.0%	0.3%			0.0%	0.2%	0.3%	0.0%	0.2%			0.3%	0.1%	0.3%	0.0%	0.1%			0.2%	
Buses and Single-Unit Trucks	13	14	10	0	37			6	144	8	0	158			8	8	32	0	48			106	141	16	0	263			506	
	2.1%	2.8%	2.7%	0.0%	2.5%			1.3%	1.4%	1.9%	0.0%	1.4%			1.7%	1.4%	4.6%	0.0%	2.7%			15.5%	1.2%	2.5%	0.0%	2.1%			1.9%	
Pedestrians					3	1					7	7							3	7						3	1			
					100.0%	100.0%					100.0%	100.0%							100.0%	100.0%					100.0%	100.0%				

## Villa Maria Rd. @ College Ave.

Leg Direction	College Ave Southbound							Villa Maria Rd Westbound							College Ave Northbound							Villa Maria Rd Eastbound							Int Total	
	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW		
6:00:00	99	91	20	0	210	0	0	10	357	19	0	386	0	0	29	50	15	0	94	0	0	34	370	55	0	459	0	1	1149	
7:00:00	130	101	38	0	269	0	0	48	800	74	0	922	0	0	72	91	37	1	201	0	0	94	1142	189	0	1425	0	0	2817	
8:00:00	121	96	51	0	268	0	0	43	617	54	0	714	0	0	52	86	36	1	175	0	0	43	987	164	0	1194	0	0	2351	
9:00:00	74	66	45	0	185	0	0	47	524	50	0	621	0	0	62	71	24	0	157	0	0	46	709	144	0	899	0	1	1862	
10:00:00	118	85	45	0	248	0	0	44	638	86	0	768	0	0	59	96	37	1	193	1	2	36	796	168	0	1000	0	1	2209	
11:00:00	120	110	55	0	285	0	0	62	673	93	0	828	0	0	107	125	46	8	286	0	0	61	851	176	0	1088	0	0	2487	
12:00:00	172	141	58	0	371	0	0	49	826	110	0	985	0	0	111	158	71	3	343	0	2	64	823	155	0	1042	0	0	2741	
13:00:00	164	110	57	0	331	0	0	49	852	117	0	1018	0	0	72	151	63	2	288	0	0	60	803	163	0	1026	0	0	2663	
14:00:00	146	114	56	0	316	1	0	37	854	91	0	982	0	0	95	140	63	5	303	1	0	53	855	170	0	1078	2	0	2679	
15:00:00	141	108	54	0	303	0	0	37	872	113	0	1022	0	0	104	139	74	3	320	0	0	51	904	150	0	1105	0	0	2750	
16:00:00	199	116	62	0	377	0	0	58	1001	104	0	1163	0	0	96	146	69	1	312	1	0	54	913	163	0	1130	0	2	2982	
17:00:00	200	158	82	0	440	0	0	76	1014	108	0	1198	0	1	77	196	77	1	351	0	2	81	1147	189	0	1417	0	1	3406	
18:00:00	124	126	60	0	310	0	0	59	788	112	0	959	0	0	60	123	60	2	245	2	1	56	735	133	0	924	0	0	2438	
<b>Grand Total</b>	1808	1422	683	0	3913	1	0	619	9816	1131	0	11566	0	1	996	1572	672	28	3268	5	7	733	11035	2019	0	13787	2	6	32534	
% Approach	46.2%	36.3%	17.5%	0.0%				5.4%	84.9%	9.8%	0.0%			30.5%	48.1%	20.6%	0.9%				5.3%	80.0%	14.6%	0.0%						
% Total	5.6%	4.4%	2.1%	0.0%	12.0%			1.9%	30.2%	3.5%	0.0%	35.6%			3.1%	4.8%	2.1%	0.1%	10.0%			2.3%	33.9%	6.2%	0.0%	42.4%				
Lights	1770	1389	670	0	3829			601	9630	1111	0	11342			991	1528	639	28	3186			721	10799	1977	0	13497			31854	
	97.9%	97.7%	98.1%	0.0%	97.9%			97.1%	98.1%	98.2%	0.0%	98.1%			99.5%	97.2%	95.1%	100.0%	97.5%			98.4%	97.9%	97.9%	0.0%	97.9%			97.9%	
Articulated Trucks	2	7	3	0	12			3	24	2	0	29			0	7	4	0	11			3	10	1	0	14			66	
	0.1%	0.5%	0.4%	0.0%	0.3%			0.5%	0.2%	0.2%	0.0%	0.3%			0.0%	0.4%	0.6%	0.0%	0.3%			0.4%	0.1%	0.0%	0.0%	0.1%			0.2%	
Buses and Single-Unit Trucks	36	26	10	0	72			15	162	18	0	195			5	37	29	0	71			9	226	41	0	276			614	
	2.0%	1.8%	1.5%	0.0%	1.8%			2.4%	1.7%	1.6%	0.0%	1.7%			0.5%	2.4%	4.3%	0.0%	2.2%			1.2%	2.0%	2.0%	0.0%	2.0%			1.9%	
Pedestrians					1	0					0	1							5	7						2	6			
					100.0%	0.0%					0.0%	100.0%							100.0%	100.0%					100.0%	100.0%				

PROGRAM STATEMENT

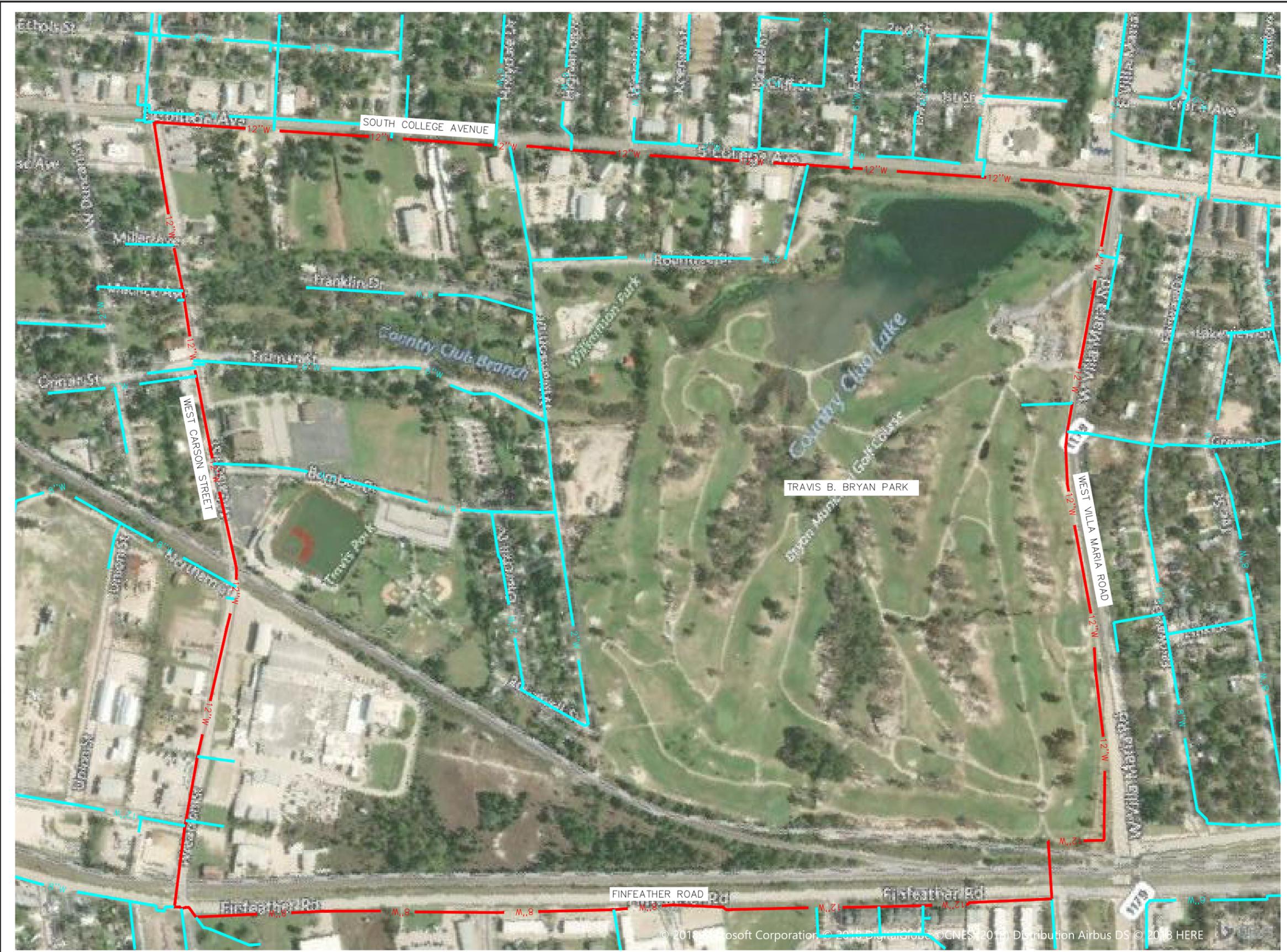
**Villa Maria Rd. @ Will VanHook Dr.**

Leg Direction	Will VanHook Dr Southbound						Villa Maria Rd Westbound						Will VanHook Dr Northbound						Villa Maria Rd Eastbound						Int Total				
	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left		U-Turn	App Total	Peds CW	Peds CCW
6:00:00	35	0	88	0	123	1	1	85	354	2	0	441	0	0	6	1	0	0	7	3	0	1	344	23	0	368	0	1	939
7:00:00	53	3	131	0	187	0	1	137	689	6	0	832	0	0	18	6	4	0	28	1	2	0	1143	37	0	1180	0	0	2227
8:00:00	30	0	91	0	121	0	0	95	521	4	2	622	0	0	9	0	0	0	9	0	0	1	788	28	0	817	0	1	1569
9:00:00	33	0	73	0	106	0	1	68	415	4	0	487	1	0	8	0	2	0	10	2	1	1	623	28	0	652	0	1	1255
10:00:00	31	0	78	0	109	0	0	99	534	1	0	634	0	0	6	1	4	0	11	0	1	3	655	17	0	675	0	0	1429
11:00:00	42	1	77	0	120	1	1	92	584	5	0	681	0	0	7	0	1	0	8	2	0	1	696	32	0	729	0	0	1538
12:00:00	48	0	87	0	135	0	1	140	772	9	1	922	0	0	9	1	3	0	13	0	0	2	717	28	0	747	0	0	1817
13:00:00	53	0	95	0	148	3	0	102	716	9	1	828	0	0	11	2	3	0	16	0	1	4	714	42	0	760	0	1	1752
14:00:00	50	2	85	0	137	0	2	113	772	9	2	896	0	0	9	1	6	0	16	0	0	4	691	26	0	721	0	1	1770
15:00:00	51	0	115	0	166	1	0	147	839	5	2	993	0	0	9	0	0	0	9	0	1	5	772	41	0	818	1	0	1986
16:00:00	69	1	154	0	224	2	0	155	1004	11	0	1170	0	0	10	0	2	0	12	3	0	2	811	35	0	848	0	0	2254
17:00:00	97	1	173	0	271	3	0	193	1082	21	0	1296	0	0	12	4	2	0	18	0	0	3	969	55	0	1027	1	0	2612
18:00:00	61	7	125	0	193	1	1	148	780	18	0	946	0	0	8	3	5	0	16	0	2	4	680	55	0	739	0	2	1894
Grand Total	653	15	1372	0	2040	12	8	1574	9062	104	8	10748	1	0	122	19	32	0	173	11	8	31	9603	447	0	10081	2	7	23042
% Approach	32.0%	0.7%	67.3%	0.0%				14.6%	84.3%	1.0%	0.1%			70.5%	11.0%	18.5%	0.0%				0.3%	95.3%	4.4%	0.0%					
% Total	2.8%	0.1%	6.0%	0.0%	8.9%			6.8%	39.3%	0.5%	0.0%	46.6%		0.5%	0.1%	0.1%	0.0%	0.8%			0.1%	41.7%	1.9%	0.0%	43.8%				
Lights	626	15	1342	0	1983			1515	8838	102	8	10463			120	19	30	0	169			31	9421	440	0	9892			22507
	95.9%	100.0%	97.8%	0.0%	97.2%			96.3%	97.5%	98.1%	100.0%	97.3%			98.4%	100.0%	93.8%	0.0%	97.7%			100.0%	98.1%	98.4%	0.0%	98.1%			97.7%
Articulated Trucks	7	0	2	0	9			0	27	0	0	27			0	0	0	0	0			0	19	5	0	24			60
	1.1%	0.0%	0.1%	0.0%	0.4%			0.0%	0.3%	0.0%	0.0%	0.3%			0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.2%	1.1%	0.0%	0.2%			0.3%
Buses and Single-Unit Trucks	20	0	28	0	48			59	197	2	0	258			2	0	2	0	4			0	162	2	0	164			474
	3.1%	0.0%	2.0%	0.0%	2.4%			3.7%	2.2%	1.9%	0.0%	2.4%			1.6%	0.0%	6.3%	0.0%	2.3%			0.0%	1.7%	0.4%	0.0%	1.6%			2.1%
Pedestrians	0	0	0	0	0			0	0	0	0	0			0	0	0	0	0			0	1	0	0	1			1
	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.0%			0.0%
Pedestrians						12	8						1	0							11	8					2	7	
						100.0%	100.0%						100.0%	0.0%							100.0%	100.0%					100.0%	100.0%	

## EXHIBITS – PER

Water System Analysis – Using maps of the water system provided by the City staff, CEC has developed a computer model of the lines serving the areas around the park. This model is being tested using pressure data from the City’s existing database to determine where more accurate pressure and flow data is needed. The City’s Public Works Department has offered to conduct more precise flow tests on designated hydrants that can be used to better estimate the water system response when flow demands from the park are added. The intended goal is to have a working model of the water system that identifies problem areas and evaluates potential improvements to address them.

CEC requested water meter readings from the Brazos County Expo Center on known high usage dates to provide a basis for estimating future demands within the park. The Expo Center was chosen because it is approximately the same size as the recreation center currently being discussed for the park. This flow data will allow relatively accurate approximations of the flow rates for input into the computer model.



SCALE: 1"=300'  
(24"x36")



**LEGEND**

EXISTING 2 IN. WATERLINE	2"W
EXISTING 4 IN. WATERLINE	4"W
EXISTING 6 IN. WATERLINE	6"W
EXISTING 8 IN. WATERLINE	8"W
EXISTING 10 IN. WATERLINE	10"W
EXISTING 12 IN. WATERLINE	12"W
EXISTING 18 IN. WATERLINE	18"W

• RED DENOTES PRIMARY WATER LOOP AROUND TRAVIS B. BRYAN PARK

**TRAVIS B. BRYAN PARK  
WATER EXHIBIT**

**GEC** PREPARED BY:  
CIVIL ENGINEERING CONSULTANTS  
4101 S. TEXAS AV. STE A  
BRYAN, TX • PH: 979/846-6212



# EXHIBITS – PER

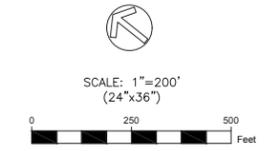
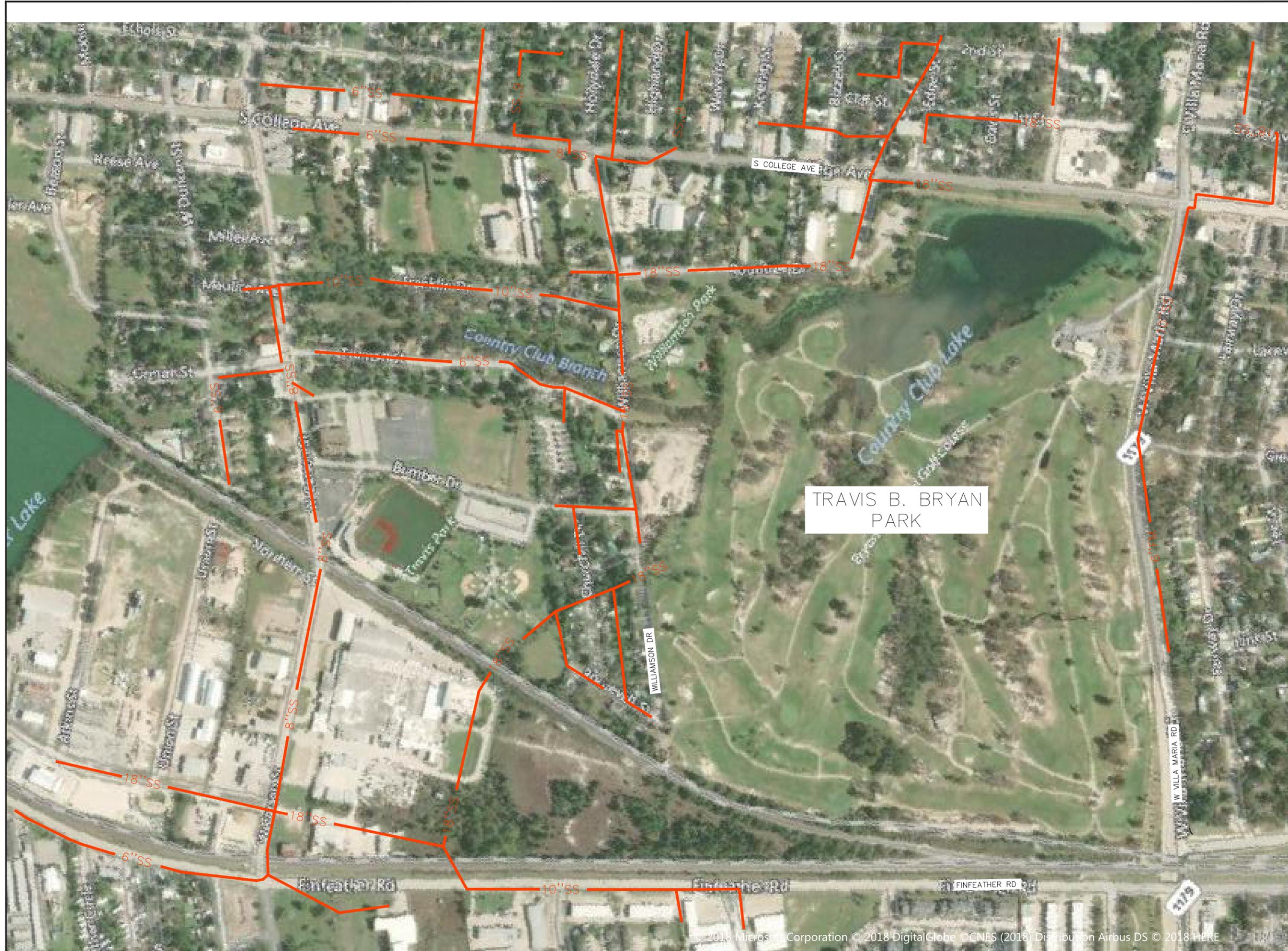
Sewer System Analysis – As with the water system, the City’s sewer system maps were used to develop a computer model to evaluate the adequacy of the lines serving the areas around the park. The City is fortunate to have large diameter lines adjacent to the park that should easily accommodate the added flows from the park. Through discussions with the City’s Public Works Director, Jayson Barfknecht, Ph.D., it was learned that the peak flows measured at the Burton Creek Wastewater Treatment Plant during rainfall events can run as high as ten times the normal flow rate. This problem is caused by infiltration and inflow (I&I) when stormwater enters the sewer system through leaks or illegal connections. This is common

in older sewer systems. The additional flow from improvements at the park will undoubtedly add to the peak flows at the wastewater treatment plant, but only to the extent that would be expected from domestic usage and not from I&I entering the system. Improvements to the system around the park for I&I reduction are outside the scope of this project but should be considered as part of a city-wide project to reduce the peak flow rates being measured at the treatment plants.

Event Date	Home and Garden Exposition 10-Feb-18							ASCE Student Competition 13-Apr-18							Fairy Tale Ball / Wrestling 21-Apr-18							
Peak Hour of Usage	Meter 673	656	674	671	21919	14619	Total Usage/Hour	Meter 673	656	674	671	21919	14619	Total Usage/Hour	Meter 673	656	674	671	21919	14619	Total Usage/Hour	
12:00-1:00 PM	61	462	4	23	0	24	574															
3:00-4:00 PM								199	348	470	11	0	15	1043								
9:00-10:00 PM															22	719	0	32	15	0	788	
	Max Hourly Usage (Gal)														1043							
	Maximum Gallons/Minute														17							
	* Peaking Factor of 4 (Gal/min)														70							

Remaining Analyses – As the Conceptual Planning Phase of the Bryan Regional Park moves into the final planning stage, the preliminary engineering associated with final conceptual design can be initiated. Internal roadway layouts, traffic impacts, drainage issues, infrastructure improvements and cost estimates will all be prepared and incorporated into the final Preliminary Engineering Report.





**LEGEND**

EXISTING SANITARY SEWER LINE	— SS —
EXISTING SANITARY SEWER FORCE MAIN	— SM —

TRAVIS B. BRYAN PARK

**TRAVIS B. BRYAN PARK  
SANITARY SEWER EXHIBIT**

**GEC** PREPARED BY:  
CIVIL ENGINEERING CONSULTANTS  
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